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ORIGINAL ARTICLES.

GOVERNMENT AIDS TO PUBLIC HEALTH.

Read in the Section of State Medicine, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

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At a recent meeting of a sanitary association, its President gave utterance to a sentiment which has often been expressed of late years in public bodies, to the effect that while the Government of the United States is most liberal in its provision for all ordinary, material welfare of its citizens, in matters of public health it is parsimonious and its aid is stinted. This, to my mind, appears unjust and has led me to make an inquiry as to what the Government, in its various branches, actually does for the public health.

Without going into greater detail than is necessary, it will be pertinent to mention, first, what has been and is being done to prevent the introduction and spread of epidemic disease; and under this head may be cited the recent establishment, on a broad plan, of the National Quarantine Service, at an expense of more than half a million dollars; the annual appropriations of fifty to eighty thousand dollars for the maintenance of the quarantine stations; the present epidemic fund to be used in case of emergency, amounting to about $100,000, and also the fund for the relief of yellow fever sufferers, which is, in a sense, an aid to public health.

In the matter of scientific commissions and establishments, mention must be made of the recent commission of Surgeon George M. Sternberg, U. S. Army, whose thorough investigations into the methods of Freire and Carmona in their attempts at protective inoculation against yellow fever, are now of public record; and the commission of Dr. E. O. Shakespeare, for the purpose of investigating the causes of cholera during its last visitation in Spain.

As to scientific establishments, attention is called to the laboratory of the Marine-Hospital Service at Dry Tortugas, within the yellow fever belt, fitted with all the most recent appliances, and intended for the special and continuous investigation of the cause of yellow fever; also to the very complete bacteriological laboratory attached to the U. S. Marine-Hospital at New York, in which are conducted investigations into the causes of disease, the value of germicidal agents, and the usual analyses and tests of a hygienic laboratory.

Mention must also be made of the laboratory of the Bureau of Animal Industry, in the Department of Agriculture, for the detection and prevention of the spread of diseases among animals, and its consequent service in preventing the consumption of diseased meat.

The laboratories of the Army and the Navy must also be enumerated. To the majority of physicians present reference only need be made to the work of the medical department of the U. S. Army in the establishment of its library and museum for the benefit of all, or to the Naval Museum of Hygiene, in whose laboratory chemical analyses of water and food are made, as well as bacteriological research.

Among the other establishments maintained by the National government for the preservation of public health, may be mentioned the Marine-Hospital Service, whose yearly treatment of 50,000 sailors in all parts of the country must surely have a decided effect upon the health of the body politic. It has been remarked by careful observers of the habits and condition of the sailor, that his physical condition has within late years very materially improved. Stress is laid upon this point because it is by no means improbable that a large proportion of the ordinary as well as contagious diseases of the human race receive their primal impulse among the lower classes of society, by whom cleanliness and health measures are disregarded. The expenditures of this service amount to about half a million of dollars yearly.

As to legislative enactments it may be said that very little additional action is necessary by Congress, if any, for the prevention of the introduction and spread of epidemic diseases throughout the United States. The recent passage of what is known as the Inter-State Quarantine Act marks an epoch in the history of National health legislation.

In the light of the above statements, it is interesting to look back into the history of quarantine legislation and to study the wants of the Nation as urgently expressed by the Quarantine Convention at Philadelphia in 1857, in Baltimore in 1858, in New York in 1859, in Boston in 1860, in Jacksonville in 1878, in Philadelphia in 1885, and in Montgomery in 1889. The cry of these conventions was for a uniformity in quarantine laws, and such uniformity, at least in times of epidemic, is now assured. Other legislation relating to the adulteration of beer, the adulteration of drugs, the adulteration of foods in general, has from time to time been proposed and enacted by Congress; and Congress in its management of the City of Washington set an example to all the cities of the world by being the first to make legal requirements regarding house drainage.

Although the above consideration is a hasty one, enough has been shown, I believe, to convince the ordinary observer that Congress does take an active interest in matters pertaining to the public health. It has been the custom in some quarters to continually decry our legislative Solons for their want of knowledge and interest in such matters, but it may be well to ask our sanitarians whether we should not cast the beam out of our own eye before we seek to pluck the mote out of the legislative eye. It has been said that a sanitary millenium can never be until there has been developed a new class of legislators, educated and aroused to the needs of public sanitation—sanitary legislators; but with equal truth it may be urged that there is need of another class of men, who may be called legislative sanitarians—men who in their eagerness for sanitary reform will yet have legislative wisdom, who will not be blind or indifferent to recognized laws and modes of procedure, nor to the ever present necessity of economic administration in this, as in all public matters. The legislative sanitarian will think twice before he lends his name to untried schemes, to experiments involving large outlay, the failure of which will bring discredit on his legislative friends. He will not blindly follow in the lead of others and cast his vote for schemes whose logical conclusions lead he knows not where. With the eye of the legislator as well as the sanitarian he will advocate reforms with due respect to institutions already existing and founded with a wisdom equal to his own, and when possible will invoke their aid rather than opposition. Sanitary laws, after all, form but one element in the scheme of general welfare, and they must be in harmony with their surroundings; they must catch the spirit of the other and even greater laws under which they are created.

In a recent letter commenting upon the passage of an Inter-State Quarantine Act, a distinguished sanitarian says: "It seems to me that it is very much to be regretted, however, that the Act does not refer to the really dangerous diseases." The diseases he refers to as really dangerous are phthisis pulmonalis, diphtheria, scarlet fever, etc. The diseases mentioned in the Inter-State Quarantine Act are: cholera, yellow fever, small-pox, and plague. He says, further, "None of the diseases . . . . more dangerous are mentioned in this Act, as might easily have been done by inserting after the word 'plague' the words 'or other diseases dangerous to the public health.'"

The point of the criticism is that diphtheria, phthisis pulmonalis, scarlet fever, etc., should have been mentioned in the Inter-State Quarantine Act. The insertion of these diseases would certainly have killed the Act, and in place of the all-powerful law which we now have to control the spread of yellow fever, small-pox, cholera or plague, we should, if this suggestion had been carried out, have had nothing whatever. It behooves, then, our sanitarians to have legislative wisdom, and not to lose all by grasping for too much at once.

The question now follows, what should the Government do in aid of public health more than it is now doing? This is a broad and deep question, and one which it would be an act of temerity to attempt to answer without the fullest consideration and deepest study. It may, however, be discussed without attempt at full answer being made; and as preliminary to answering this question we must make answer to others. At what do we aim? At what degree of public health should we aim? The standard can not be placed too high. The natural expectation of man should be to die of old age, and the ultimate aim of the sanitarian should be to eliminate disease. It is not enough to keep out or to suppress epidemic disease; we would wish to crush domestic diseases. Phthisis pulmonalis, diphtheria, scarlet fever, small-pox, and all diseases whose mode of transmission is by contact, should surely all go. A good and practical beginning might be made with pulmonary tuberculosis.

A lesson in the science of warfare against this disease may be well taken from our English cousins. Why is it that tuberculosis is rapidly disappearing from England, but is so rapidly increasing in the United States, where it causes between 15 and 20 per cent. of the total deaths? How is it in the other countries, especially those which contribute most largely to the immigrant population of the United States? The death-rate from tuberculosis in these countries is undiminished. Now, it should be borne in mind that England receives no immigrants. The natural cleanliness and intelligence of the English people has caused a most remarkable improvement in the health of the nation. London is one of the healthiest cities in the world. Its death-rate is much less than many of our small American cities. Said Benja-

min Ward Richardson recently: "The results have even by this time become so remarkable that, with another four similar decades of progress, we may look upon England as a new country of healthfulness and social purity." Are we, gentlemen of the Section, we, the Anglo-Saxon population of this country, less clean or intelligent than our English cousins? If not, then our death-rate should improve, unless we are subject to causes from which they are exempt. To one such cause we are subject, namely: the stream of immigration. Then, why not attempt to purify the stream? While driving out the dust of contagion from our own house let us permit only pure air, free from dust, to enter. Pulmonary tuberculosis should be added to the list of diseases quarantined against by the United States, at least among immigrants.

As bearing upon the subject of English cleanliness in its relation to the diminution of disease, the writer refers to a visit made by himself to the slums of London, in Whitechapel, in January, 1885. This neighborhood, besides being the resort of hawkers, pickpockets and thieves, is a tenement house district, and, notwithstanding the degraded condition of the inhabitants, the tenements—which are subject to regular police surveillance and inspection—were found to be invariably clean. They are greatly crowded; five small houses owned by one proprietor accommodated 600 men and women nightly, at a rate of 8 pence for a married couple, and 4 pence for men. One room was seen in which there were seventy sleepers crowded closely together. Notwithstanding this crowding, the tenements are kept clean, and a certificate to that effect, signed by the regular inspector of the district, is neatly framed and hung upon the wall. In two of the districts which were visited there were about 250 regular, common lodging-houses which accommodate, nightly, 7,800 tenants, and only about one dozen of infectious cases had appeared in the district within a year.

In further answer to the query, "What should the Government do in aid of public health?" one important fact is to be borne in mind—the necessity of absolute reliance upon ourselves. History furnishes no models for the construction of any sanitary institution adapted to the wants of this nation. Lycurgus, with his Spartan laws, adapted to a small and peculiar province, the laws of Solon, the laws of Moses, the quarantine laws of the fifteenth century, the sumptuary laws of Rome—none of these furnish a sanitary framework for the United States. What modern nation is perfect in its sanitary regulations? What nation has such conditions of boundary and magnitude as our own? What has England, with its Government on a "tight little isle," and its possessions scattered over the earth, what can a nation with such physical conditions teach us? What can France, or Spain, each with a territory surpassed by a single one of the United States, teach us? Or Germany, with scarcely any seaboard at all? What conditions prevail in Russia, Italy, or Turkey, that prevail here?

We may adopt scientific appliances, we may study technique in foreign lands in establishing sanitary measures, but we must be a law entirely unto ourselves with regard to our sanitary policy. The United States is the *omnium gatherum* of the world. In the last ten years five and one-half millions of immigrants have come to our shores from all sections of the earth. We ourselves allow no pestilence to breed within our domain, but the cholera from Egypt or India, the plague from Russia, the yellow fever from the Spanish main, come as parasites of our great commerce and immigration. We send no diseases abroad, but by reason of our character as a haven, are constantly subject to disease from abroad. Our sanitary policy must be *sui generis*, must be formulated out of our own institutions, and must be influenced but little, either by ancient tenets, or by modern opinion of foreign countries whose circumstances are wholly different from our own.

A sanitary policy should be adopted far-reaching in its effects, adapted not for the present decade alone, but for decades to come. Its direct aim should be the ultimate intelligence and education of the average citizen in matters relating to his personal health, and the health of his Commonwealth. How this must be attained will be discussed presently, but in anticipation thereof it is necessary to state that a sanitary policy must be entirely in harmony with the spirit of the American Government, and no better plan for sanitary government appears at the present time than one modeled upon the structure of the general Government itself.

Broadly stated, this sanitary policy expects of each State a sanitary autonomy whose influence should be appreciated by every individual in every hamlet, however small, in its domain. It contemplates a State pride in the development of sanitation, a self-reliance and an unwillingness to surrender functions or call for aid from the general Government excepting after clearest convictions of propriety or necessity. This policy expects from the general Government that since it controls commerce, both maritime and inter-State, it will prevent commerce from conveying disease; that it will respect the sanitary institutions of the States; that it will have such organizations and establishments as properly belong to its sphere of action to supplement where States fail, and to enable it to wield its peculiar power when urgency demands. It was a want of harmony with the spirit of American Government that led to the failure of the National Board of Health. That was a sanitary empire—or sought to be—within the boundaries of a republic. It was un-Amer-

can and it fell. In its very fall, however, it effected a good result. Immediately the sanitarians of the several States developed a marked State activity. Is there one who believes that if the National Board of Health had retained its powers, there would be the present advanced condition of State Boards of Health throughout the United States? It may be considered an axiom that the sanitary welfare of this country is dependent upon the development and perfection of the State Boards of Health. By means of State Boards only can the individual be reached. The reports which come from far off, perchance mountainous districts of out of the way counties, sent to the State Boards of Health, by them printed and transmitted to the world, furnish a stimulus to the community from which such reports emanate, as well as valuable information for sanitary officials.

The sanitarians and the Government must give mutual aid. To control commerce that commerce may not be clogged and lay the hand of healthful restraint upon her for her own good; to spread a net and hold it firm, to catch and throw back the vicious and diseased in the great wave of immigration as it breaks upon our shores; to check the merchant or manufacturer when his absorbing greed for gain makes him ready to risk the lives of hundreds; to oppose the lawyer when by a legal twist in behalf of the individual he seeks to force a way around the sanitary barrier erected for the common safety; to force the slow comprehension of legislators; to prick the conscience of the tardy doctor with the needle of the law, and even to sweep from the path the sentimental obstruction of mistaken priest and clergy—this is the mission of the sanitarian, the duty of the Government.

"SHE THOUGHT IT WAS HER CHANGE OF LIFE."

REPORTING CASES OF UTERINE POLYPI, UTERINE CANCER, INVERSION OF UTERUS AND SUB-PERITONEAL FIBROID.

Read by Title in the Section of Obstetrics and Gynecology, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., June, 1890.

BY A. VANDERVEER, M.D.,

OF ALBANY, N. Y.

The object of this paper is to concentrate upon certain cases that occur in our consultation practice, and in the practice of the overworked general practitioner, a closer and more positive examination for the purpose of a correct diagnosis. I will proceed at once to the report of a case that will help to illustrate what I have in mind.

Miss M., æt. 47, a well-to-do maiden lady residing in a small country town, had been in good health, regular in her menstruation up to the age of 44, when she began to flow more excessively at her menstrual periods, and soon thereafter developed a condition of both menorrhagia and metrorrhagia. After this condition had lasted for a year, and when she was quite anæmic, somewhat exhausted and losing in flesh, she consulted her family physician, Dr. B., who treated her for some time with tonics, rest and diet, with some little benefit, and yet not much improvement as to the excessive flowing. He suggested making a careful examination as to her condition, but this she positively refused to have done, saying that "she believed it to be only her change of life." He treated her for another year, at the end of which time she was confined to her bed, and yet refused to have any local treatment. When she had suffered for nearly three years, and in a condition when there was much œdema of the extremities, her lips colorless and a profound state of anæmia present, at the earnest solicitation of the members of her family, she finally yielded, and the doctor was permitted to make an examination which confirmed his previous suspicions of a uterine fibroid. It presented in the form of a simple polypus projecting from the external os. Her condition was made known to her and an immediate operation urged. I was sent for on October 10, 1887, and found her in such an exceedingly feeble condition that I really feared she might die from the additional slight shock of the operation. She, however, was very willing to have done what seemed to be best, was now entirely passive, knowing that she could live only a short time if not helped in some way. I found a large polypus filling the cavity of the vagina, and attached by a moderately-sized pedicle to the internal os. Around it I was able to pass the chain of the écraseur, and to remove it without any great trouble, not giving the patient an anæsthetic, as I feared she would be unable to endure it. Cavity of the uterus was curetted thoroughly, washed out with a weak solution of bichloride and packed with iodoform gauze. This was removed at the end of forty-eight hours and afterwards vaginal douches made use of containing boracic acid in solution. This patient ultimately made a complete recovery, although her convalescence was somewhat slow in consequence of her exceedingly weak and exhausted condition.

I present this as a case familiar to many of us, illustrating a class of cases where procrastination on the part of the practitioner, absolute indifference and stubbornness on the part of the patient often costs the latter her life. Women seem to have in their mind the idea that they must expect all sorts of conditions to present at the time of the menopause, and are too negligent, too frequently, in having their cases properly looked into.

Belonging to another class of cases, which are far more sad, are the following:

Mrs. B., æt. 33, married, mother of three children, has always been in good health, family history good, youngest child 3 years of age, whom she nursed and weaned at the age of 14 months. Menstruated regularly after that until six months previ-

ous to her admission into the Albany Hospital, September, 1886. During that time her flowing had continued almost constantly. She suffered little pain, but was much weakened, had emaciated somewhat, and continued attending to her household duties, refusing all local treatment. Her family physician finally told her that he would have nothing more to do with her case, and that she must go to the hospital, where she came under my care. On making an examination, I found an epithelioma that embraced the entire cervix, extending to the lateral walls of the vagina, to the under surface of the neck of the bladder, and extending up along the lower portion of the urethra. It was absolutely impossible to do anything for her in the way of treatment or operation, and when she was informed of her true condition the sadness of the scene is but too well known to many of us. This illustrates a class of cases by far too numerous as they present in hospital practice, and yet notwithstanding the time of life at which this patient complained, she too insisted that "she supposed it was her change of life, and that she would soon be all right."

Belonging to another class of cases are some such remarkable ones as I here report, where, having passed the menopause in a normal manner, the patient afterwards presents this condition of flowing and exhaustion, but still entertains the idea that it is simply a return of the menstrual flow, and which indicates another phase or condition of change, and which the following cases illustrate somewhat:

Mrs. Gory, æt. 65, married, native of Canada, mother of seven children, a strong and healthy woman all her life, passed her menopause without any unusual symptoms at the age of 49. At the end of three years, during which time she had been in good health, she began, as she supposed, her menstruation again. Did not pay very much attention to it at first, it came on at irregular intervals and continued so, at times flowing very severely. During March and April, 1889, she visited Chicago, when, flowing very severely, and being under the care of the physician of the family where she was stopping, after examination she was told by him that she had a uterine polypus, and that he would operate upon her by dilating the womb and removing it. She did not like to be operated upon away from home, was fearful of the effect of an anæsthetic, and returned to her family. Her flowing continued at intervals with more than usual severity, accompanied with very much pain at times. She described her pain as being of an expulsive character, not unlike that of childbearing, as she stated. The pain during July and August was unusually severe, and she realized that something was projecting from the vaginal orifice. About August 15, 1889, this became very prominent and somewhat offensive. She had been treated by her local physician, who failed to make any diagnosis of the case. On August 23, Dr. Turner, of Crown Point, N. Y., was called to see her and was somewhat startled on entering the room, to notice the very marked odor of gangrene that presented. On examination he found a mass protruding from the vulva, the exact character of which he was unable to diagnosticate. I was telegraphed for, but did not see her until August 26, 1889. I then found the mass protruding as seen in the accompanying specimen. After a thorough and careful examination, I reached the conclusion that she had been suffering from uterine polypus, which had gradually extruded itself from the cavity, bringing down the fundus of the uterus, and causing inversion of the same. I could feel the lips of the external os well up in the vagina. Taking all things into consideration, her age, and the nasty gangrenous condition of the presenting mass, I concluded that it was not wise to dissect off the polypus, and reinvert or return the uterus, but to throw around that portion of the fundus that could be easily reached, the chain of the écraseur, and remove the mass in that manner. She bore the operation without taking an anæsthetic, the hæmorrhage was not at all severe, the parts were thoroughly douched with a bichloride solution and the cavity of the vagina packed with strips of iodoform gauze. These were removed at the end of the second day, and afterward the vaginal douche of boracic acid solution was continued daily. The specimen, as you will observe, contains the right horn of the uterus and Fallopian tube, the écraseur having reached well above the sloughing mass. She made a good recovery, and is now in excellent health.

The next is a case quite as remarkable in many respects.

Mrs. B., æt. 72, married, mother of three children, her husband a physician, but who had been in a very sad condition of nervous prostration for a period of ten or fifteen years. Mrs. B. had always enjoyed good health, but at the time of her menopause flowed very severely and irregularly. Supposed that she had ceased to flow at the age of 53, and was in fair health for a few years, but feeling some distress later on consulted the late Dr. Goldsmith, of Rutland, Vt., who told her that "she had a falling of the womb," and fitted her with a glass pessary which she wore without removing for fifteen years. She could then retain it no longer and suffered much for the following year. Later she consulted another physician and an attempt was made to have her wear, first a Babcock external supporter with stem pessary, and later a MacIntosh, all of which were somewhat useless. She suffered a right hemiplegia two years ago, when 70, from which she made a good recovery. Six months ago she noticed, as she supposed, an entire prolapse of the uterus which she could press back with much difficulty, and

which she continued to do until about two months ago, when she was unable to do it. It now remained out, she was confined to her bed, gradually growing worse, but her husband not in a condition of mind to recognize the serious state of her health. Her son, a very competent physician, she did not consult, although he saw her daily until about January 28, 1890, when, noticing her condition, the odor of the room, etc., he made careful inquiry of his sister, and then for the first time, learned of the serious condition she was in. He immediately sent for one of his neighboring physicians, who made an examination, but was unable to state positively what he believed to be the real trouble. February 1, 1890, the doctor called at my office desiring me to see his mother at once. I did so the following day, and found a sloughing fibroid protruding from the vulva, presenting the most offensive odor possible. The room had been kept thoroughly ventilated, but the odor was almost unbearable, and the patient seemed much distressed and in a very anxious condition of mind. She stated that she supposed for a long time that her flow had returned, and that she did not think there could be anything seriously wrong until the mass protruded from the vulva. The fibroid had its attachment to the anterior wall of the uterus, and very curiously rested between the cervix and posterior wall of the bladder. By passing the catheter into the latter viscus I obtained a very correct idea of the surroundings and concluded to remove it with the chain écraseur, which I did with little trouble. After removal the uterus returned kindly to its position. She made an uninterrupted recovery and is again able to care for her invalid husband.

The point that I wish to present is this, that these cases are to be found all over the country, and that in some way, and in some manner we should indicate to our patients the importance of their yielding to a more prompt examination, when such histories present as are here given. Our young women should be taught in our schools, academies and colleges more on the subject of menstruation. They should know more about their reproductive organs from chaste, moral and intelligent teachers. Mothers should know more of the functions of their own individual organs, and learn to teach their daughters.

Finally, the profession should exercise more care in impressing upon young wives and mothers the knowledge that in so many cases they so sadly need, and not assume the care of patients who are so unwilling to have the necessary examination made.

The Committee of the International Medical Congress to be held at Berlin has decided to give their guests a grand farewell banquet at an estimated cost of 15,000 marks ($3,750).

CROUP.

Read in the Section of Diseases of Children at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May 21, 1890.

BY C. R. EARLEY, M.D.,
OF RIDGWAY PA.

Dr. William Cullen calls this disease "Cynanche Trachealis."

"This name has been given to an inflammation of the glottis, larynx, or upper part of the trachea, whether it affect the membranes of these parts, or the muscles adjoining. It may arise first in these parts, and continue to subsist in them alone; or it may come to affect these parts, from the cynanche tonsillaris or maligna spreading into them. In either way it has been a rare occurrence, and few instances of it have been marked and recorded by physicians. It is to be known by a peculiar ringing sound of the voice, by difficult respiration, with a sense of straitening about the larynx, and by a pyrexia attending it."

We will now refer to the writings of Bartholomew Parr, M.D.[1]

"ANGINA TRACHEALIS."

"In compliance with Dr. Johnson and consonantly with our observations in a former article, we mention this species as a separate one, and distinct from that sometimes comprehended under this title by other authors.

"The croup we shall consider under the appellation of angina stridula, and confine the present term to the malignant angina, extending to the trachea, or to that species of the disease in which the larynx and trachea are originally attacked. To this complaint authors have not, perhaps, paid due attention; it is indeed seldom an original disease; yet within our observation, it has appeared to be so. It is truly an erysipelatous inflammation in contradistinction to the phlegmonic; nor does it materially differ in its treatment from putrid pneumonia, or angina maligna. We need not in such instances dread the power of the bark in inducing dyspnœa, but employ it freely with cordials. The only question is whether blisters are more admissible or more effectual? From our own experience we cannot encourage their application; but they certainly do no harm."

"ANGINA STRIDULA."

"This is the cynanche trachealis of Cullen; a disease that, for its singularity and fatality, has fixed the attention of pathologists and practitioners. We wish we could solve the difficulties, or direct a more scientific or successful method of cure than has hitherto been adopted.

"The angina stridula, is also called angina membranacea, interna, perniciosa, polyposa, catarrhus suffocativus and morbus strangulatorius. It is chiefly a disease of children, and is distinguished by a difficult inspiration sounding as through a brass tube, harsh cough, with seldom any tumor in the throat, and no difficulty in swallowing. This definition differs from that of Dr. Cullen who is a little warped, by his adherence to system.

"A cold and a short cough precedes for some days, when the harsh breathing comes on, with little or no fever; sometimes suddenly, at others more gradually, increasing by degrees, till suffocatien closes the scene.

"The disease consists of a membranous substance lining not only the trachea above its divarication, but also its minutest branches, though the large parts of the tube are first affected. It has been considered as a spasmodic disease by some, as it attacks suddenly, and is relieved by warm baths and asafœtida, and as inflammatory by

[1] Parr's Medical Dictionary, A.D. 1808. Vol. I, pp. 119-120.

others, who rest with equal security, on the cough preceding, and the utility of bleeding."

The "Edinburgh Practice of Physic," Vol. I, pp. 352 to 381, twenty-nine full pages, discusses the subject of croup, and gives full reference to, and quotes freely from authors as to theory and treatment of this disease, before the publication of that "Practice." In the treatment recommended by the "Edinburgh Practice," the use of bark is strongly recommended.

John Eberle, M. D., ("Practice," Vol. I, pp. 323 to 336, Fourth Edition, A. D., 1838), discusses the subject very freely under the names of cynanche trachealis, croup and hives. The latter name for croup, was used by the people in the country. It was often called bold hives. His treatment was bleeding freely and followed by emetics, calomel, and the warm baths. He gives us thirteen pages of his theory. John Mackintosh, M.D., ("Practice of Physic," First American from Third London Edition, A. D. 1834, Vol. I, pp. 277 to 285), gives the usual history of croup of those days. In his reference to the appearance on dissection, he says:

"On opening the trachea, false membrane is found lining the organ in various states; sometimes it is soft and diffluent; sometimes partial; at others extending beyond the bifurcation. Sometimes it is found of very considerable thickness and firmness, of a tubular form, corresponding exactly with the canal which it covers, and extending an inch or two into the branches; on some occasions, the first divisions of the tubes are as completely lined as the trachea. Frequently the larynx is similarly affected."

We also give an extract of what he says as to treatment:

"This is a disease of all others which requires promptness of decision, and activity in practice; for if false membrane be allowed to form, not above one case in the hundred will be saved. The worst cases are those in which a sore throat has been neglected, and the inflammation has spread into the windpipe; or those in which patients have labored under bronchitic symptoms for a week, or perhaps more, before the disease has affected the trachea and larynx, under which circumstances, a recovery is rather to be considered as an escape, than as an event to be expected."

We have thus quoted some extracts from the writings of Dr. William Cullen under the name of cynanche trachealis, and Bartholomew Parr, M.D., who refers to Cullen, and uses the name angina trachealis, but considers the croup under the appellation of angina stridula, etc. Also from the "Edinburgh Practice of Physic" Dr. John Eberle ("Practice"), and from John Mackintosh, M.D., ("Practice of Physic"), and all these authors describe to us in their writings on croup, the disease we call diphtheria in some of its forms.

Morell Mackenzie, M.D., of London, in his very valuable works on the throat, nose, pharynx, larynx, trachea, œsophagus, nasal cavities and neck, fully describes croup under all its names, and gives a full history of it, and proves it beyond a doubt, to be one form of diphtheria. He quotes many of the most prominent authorities to prove his position.

We find proof of the identity of croup and diphtheria in the practice and writings of such authorities, as Dr. Mackenzie, whose opinion is respected and quoted as authority, in all parts of the world; also, Drs. Hillis, Semple, and Virchow, who only yielded to the principle advanced that diphtheria and croup were identical, after a long and thorough investigation.

Dr. George Jackson (*British Medical Journal*, Feb. 19, 1870), pronounced diphtheria and croup identical. Sir William Jenner, (*Lancet*, Jan. 2, and 16, 1875), gave his adhesion to this doctrine. The renowned Dr. Traube, of Germany, also had accepted the unity theory.

We might quote authorities filling pages to prove the identity; but it is a question that each practitioner can settle in his own mind. My experience in an extensive practice since the fall of 1846, has proved beyond a doubt in my mind, that croup is only a form of diphtheria. My treatment of the disease in its first stages, was an emetic of ipecac which has always proved perfectly safe and sure, and when attended with a high fever I have used freely a solution of ipecac, chlorate of Potassa, and the chloride of sodium, in small and repeated doses, together with warm baths and friction of the entire body and limbs, in the febrile stage, and as soon as the surface becomes moist, change the friction and baths to rubbing and bathing with bay rum or alcohol and water, equal parts, used two or three times a day, and the use of quinine in large and repeated doses.

The first time I used quinine in croup, was in Sept. 19, 1846. I was called in great haste to see a little girl, 1 year and 9 months old, whom the friends thought dying. They had used Cox's hive syrup, and all the medicines usually kept in the house in those days, to meet cases of croup. On my arrival I found nearly all the ladies of the then small town, much excited, as they thought the child dying, and were shaking and fanning her, as she was struggling for breath. I at once gave a very large dose of quinine, and with great effort the child swallowed it, and soon began to breathe easily. I repeated the quinine from every one half to one hour in smaller doses. The warm wheat bran bath they were using, was kept up for a time, and the child bathed with alcohol and water afterwards, and with the free use of a solution of ipecac and chloride of sodium, the patient was soon well.

This was my first use of quinine, and I had never seen it recommended for croup. I at once reported the case to my friend Dr. Frank H. Hamilton, then at Buffalo, N. Y., formerly at Geneva, N. Y. Since that time I have used quinine in the treatment of croup and always

found it satisfactory, if given in doses as required.

I sometimes use a brush or sponge for applying the solutions to the larynx and trachea, something after the plan of those recommended by Dr. Mackenzie. I used these brushes first in 1846, by making the handle in the same form from a whalebone, by bending the end of the bone, and piercing it with holes, then securely sewing through them, a very fine sponge or linen lint on and around the end for the brush, and trimming carefully before using.

My first treatment of diphtheria, was on Nov. 1, 1860, and I gave the treatment as directed by the medical journals of that day, and my patient died. I then adopted the same treatment I had used for croup in 1846, only being governed by the different stages of the case and the constitutions I had to treat. In the inflammatory or stage of high fever, I use ipecac, chlorate of potash, chloride of sodium, bicarb. of soda and gum acacia, and free bathing with strong saline baths. I use quinine, iron, and carb. ammonia in solution, also whisky, brandy or wine, and stimulants generally, taking good care of the stomach and bowels at the same time using creta præp. freely in case of diarrhœa, being very cautious as to the use of cathartics. I never give calomel or any medicine that will in any way weaken or prostrate, but always support and build up the entire system.

Out of 489 cases of diphtheria I treated from November 1, 1860, until February 15, 1861, as reported by me in the *Cincinnati Medical and Surgical News*, Vol. II, No. 4, page 104, only five died and 484 recovered. That same course I have since adopted and with the same results.

I will here quote an article from the May number of the *Medical World*, Vol. VIII, No. 5, page 181:

"'Croup' is not confined to the air-passages alone. A form of croup attacks the urethra sometimes, and is indicated by the excretion of characteristic white membranous structures, mixed with more or less blood and pus. Croup of the bladder is more frequent in females, the membranous substance being reddish in color, and in much larger pieces"

This statement is correct as to cases of diphtheria. The membrane may be found covering any part of the mucous membrane, mouth, nose, fauces, trachea, bronchia, stomach, bowels, kidney, urethra, rectum and vagina. I have at this time a small box of the membrane taken from the vagina. I also have had cases where wounds on any part of the body where the cuticle was removed were covered with this fungi. I call these cases diphtheria and not croup. All of which is respectfully submitted.

HOSPITAL BURNED.—The Mercy Hospital at Davenport, Ia., was partially burned on June 11. One of the Sisters perished in the flames.

OPERATIONS FOR THE RADICAL CURE OF HERNIA IN EARLY INFANCY AND CHILDHOOD.

Read in the Section of Surgery and Anatomy at the Forty-first Annual Meeting of the American Medical Association at Nashville, Tenn., May 20, 1890.

BY THOMAS H. MANLEY, A.M., M.D.,
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My object in submitting this article to the Section of Surgery is with a view, mostly, of presenting a few notes on a small number of cases in which, during the past four months, I performed operations for the cure of hernia, besides to offer a few comments on such cases as come within the scope of such operation.

I am particularly desirous of obtaining the views of several surgeons as to the desirability of doing a celotomy in early life, and their opinions as to the temporary or permanent character of such a cure as is wrought by modern surgical methods.

My cases are seven in number, all boys, the oldest seven years and the youngest three weeks; no history of heredity or injury in any of them. In every instance the protrusion was discovered shortly after birth. In none of them could a truss be worn with comfort, and in two no sort of contrivance would retain the hernia in its proper cavity. I had no deaths or dangerous complications after operation, and in all except one case the incision healed promptly and completely within fifteen days after the cutting was done.

Case 1.—P. B., aged 7 years, was first brought to me when 1 year old, with a large protrusion on the left side. From the mixed nature of the anatomical derangement and pathological condition I was unable to decide what the mass consisted of, as it in many respects was like a hydrocele of the cord, a scrotocele, or a new growth. I was not quite sure that it could be wholly reduced. On general principles, however, I recommended a truss. I saw nothing more of him again for four years. His father informed me that he secured a truss as I directed, but it gave the lad so much pain that it had to be laid aside, when he consulted others, who were undecided as to what the little fellow was suffering from. However, with nearly uniform accord they advised that a truss be worn. Another truss was applied, but in spite of it the hernia would slip down. However, as it was supposed it would prevent matters from getting worse, he was obliged to constantly wear it. I now advised an operation, but the father would not consent to it until two years later. I saw the boy again in December, 1889, when the protrusion had attained more than twice its former volume, and swung like an immense pouch down the inner side of his trousers, to such an extent that his mother could not devise any sort of garment which would effectually conceal this repulsive deformity; and

hence the boy had to endure the jeers and ridicule of his young associates. On careful examination the testis on the affected side was found reduced to more than half its size, and the protruded mass stubbornly resisted taxis. It was clearly evident now that the truss, by its constant pressure, had greatly reduced the nutrition of the generative gland, and, besides, had by its chafing, irritating pressure produced extensive adhesions.

I operated on him December 7 at the Harlem Hospital. On opening down over the enlargement it was at once seen to be a hernia of the congenital variety, there being no sac, the intestine and atrophied testis lying firmly bound together within the fascia propria. All the serous surfaces were found more or less adherent, and considerable peeling off and tearing had to be done before the gut could be liberated and returned and the testicle isolated. I now removed the testis, separating it from the spermatic cord high up. The tunica vaginalis was detached from its adjacent tissues, and it, with the funicular process of the peritoneum employed as a sac, was ligated off close to the abdominal aperture. The rent in the tissues was treated by the open method of McBurney.

He made a rapid and uneventful recovery. Except for a painful dermatitis excited by the bichloride gauze, there was nothing to mar his convalescence. He left the hospital in four weeks, and at the end of six weeks from the time of operation he took the upright position. Everything went well for two months, when it became evident that the hernia was threatening to return. A mass the size of a small marble was seen near the upper margin of the scar. A truss was immediately applied and worn since. Though there has been no recurrence of the rupture to any extent whatever since the truss was worn, I have, as a precautionary measure, advised that it be constantly retained while he is about in the day-time.

Case 2.—T. H. This baby was 10 weeks old when he came under my observation. The mother stated that for two weeks or more she had observed, when giving him his morning bath, that on the right side she would at one time see a large swelling in the region of the groin, and at another the testicle alone could be felt. Again, what puzzled her the most was that no trace of the testis, or anything whatever, was visible on another occasion. She brought the infant to me to have this state of things remedied. On examination no testis was found in the right pouch of the scrotum, but by searching for the outer ring the gland was felt just within and above the inguinal opening. Now, by making moderate traction under ether the testis could be brought down well into the scrotum, but it was evident that something else was coming close after it. In opening up the parts, that small conical lamina of fibrous tissue designated the governor, or gubernaculum, was seen to be absent; but anatomically the arrangement was very similar to the first, except, instead of the testis being adherent to the intestine, the tubular structure of it, the epididymis, was firmly glued to a fringe of omentum. The latter was dissected away, when the testis was fixed in position by a fine suture penetrating the tunica albuginea and its opposing serous membrane. We then, commencing with the innermost layer of the coverings, closed them in *seriatim* from below upward, until the ring was reached. Here I turned in the divided omentum and sewed it into the pillars on either side with the kangaroo suture. With the exception of some trifling uneasiness for a few days, the operation was followed by no serious constitutional disturbance, and in ten days' time the wound was well solidified.

Case 3.—Dr. Ira B. Reed, of New York, requested me to operate for him on a baby three weeks old. The rupture was discovered three days after birth. It was on the right side. The testis was normal in every respect. The hernia came well down into the scrotum, and as no sort of bandage or truss arrangement could be worn, the doctor requested my advice and assistance. I recommended immediate operation. This hernia, though very large, was of the same identical anatomical structure as the other two, except that there were no adhesions.

I was content, in this instance, to open up the invaginated and enormously distended funicular process sufficiently at its base for inspection, and then closed the whole up to the ring—all the redundant tubular structure—with the cobbler's stitch. I saw that something must be done at the inguinal portal to close in and permanently obliterate it. In this situation I used small, strong silk, passing my suture first through the integument on the inner side, the connective and other tissues, then through the inner pillars of the ring, through the dilated fascia propria, over the spermatic cord to the opposite margin of the ring. Five of such sutures were employed and tied tightly, one end of the suture cut off and the other left in the wound. The portion of the cleft through the soft parts immediately over the ring were treated by fine packing from the bottom, as in the operation of McBurney.

This case has progressed satisfactorily. In three weeks' time the parts were solidly sealed, and now, more than three months since the wound closed, there has been no symptom of relapse.

Case 4.—M. O. T., 8 years old. Child sent to me by Dr. James Heally. The youngster had hernia noticeably when two weeks old, on right side. Large inguinal variety, and could not be retained with a truss without great discomfort.

With this case the hernia was a nearer approach to the adult type. Though not large, it had an independent sac. The testis was normal in every respect. The spermatic cord was most intimately bound down and thoroughly incorporated with the sac, requiring a most tedious and delicate dissection to isolate it. The sac contained intestine, which was pressed upward when it was ligated off and divided, that part presenting externally cut away, and the case treated essentially as the preceding.

Case 5.—W. R. This child was 4 years old, with no evidence of hernia till he was 2 years of age. Hernia in the left side. Owing to the long and severe pressure of a string truss the skin over the line of the inguinal ring was callowed and chafed, but no truss could be tolerated at all which would keep the parts up; and hence, rather than compel him to submit to the torture of a truss, the parents discarded them all and let him go about with his hernia swung in a home-made cotton bag. However, it was so rapidly attaining very broad proportions that he was sent to me for operation. The steps in the operative procedure varied but little from the others, except that I well refreshened the margins of the rings before I applied the silk sutures. Prior to the operation he suffered from nocturnal incontinence, but at once the rupture was cured the night-wettings immediately ceased. His recovery from the operation was rapid and complete, and now out of the hospital on his limbs again nearly two months, there is not the slightest evidence of relapse, and the mother tells me that whereas heretofore he was practically invalided through his deformity, now he no longer stands aside, but shares in all the games of boyhood.

Case 6.—E. M., an infant aged 8 months, operated on March 6. Mother said that when 4 months old she noticed, for the first time, that a testis was wanting, and brought him to a physician, who encouraged her to wait, as he said the missing organ would in time come down. She waited for a month, when she found a large swelling in the groin, which would vary in size and position, some days being well down, and on others higher up. She applied a truss, on the advice of a neighbor, but it worried the little fellow so much that it was removed altogether.

When we opened the flask-shaped enlargement no testis was found, but on going in the direction of the abdominal aperture a small testis adherent to the loose cellular tissue, just within the outer inguinal aperture, was found. After opening the fascia propria—for the intestinal protrusion had no visceral covering of peritoneum,—the gut was crowded inwards, and the prolapsed transversalis fascia, the sac, ligated off close to the free peritoneal border and divided. Under moderate traction and tearing the spermatic cord yielded sufficiently to allow me to bring the testicle well down into the scrotum and secure it against the possibility of future retraction. The hernial wound was closed throughout, the parts brought together and sewed separately. The ring closed securely over the cord with strong aseptic silk.

Case 7.—H. B., operated on April 16, 1890. The baby was 3 years old. On admission to Harlem Hospital little of the surgical history of his case could be obtained, as he was an illegitimate offspring and was being brought up by an aunt. Of one fact there was no doubt, viz.: that the boy had a decided fulness along the line of the spermatic cord, which no truss would remove. There was some difference of opinion as to what the real pathological state was, one maintaining that it was a spermatocele, and another that it was a hernia. The position of the testis was normal. The mass was conical in shape, with its base the reverse of ordinary ruptures. Its apex was at the epididymis, and its broadest part on a line with the ring. In straining or coughing it visibly expanded along its superior outline, and on taxis it was definitely ascertained that a portion of the abdominal contents passed through the canal. In dissecting immediately above the testicle and opening the tunica vaginalis a pure serous liquid escaped. By further inspection upward a small knuckle of intestine was felt and returned, which was probably prevented from descending further by its ligament. In this, as in the congenital varieties before noted, I closed in the distended spermatic sheath by the quilted suture of kangaroo tendon, except at the ring, where strength and moderate permanence were demanded.

This, as all the others, did well in every respect, and was dismissed from the hospital in three weeks, perfectly cured, with no trace of his former impediment remaining.

These seven cases comprise my experience in treating defects of this description in very early age by operative methods.

I am very well aware that the number is too small, and the time too short since operation, to draw any definite inferences or make practical deductions. However, the cases are not so few but they afford very many features of deep interest to the studious anatomist and progressive surgeon.

It is needless, in presenting a subject of this description before a body of well-trained surgeons, to consider the complex and varied anatomical arrangements found in each case, even if time permitted, though it is indispensable that this be thoroughly mastered before even the most rudimentary comprehension of the defect is possible.

The cases narrated are, I think, interesting when we remember that they were all in the male sex, and, with two exceptions, were associated with maldescent of the testis; when we see how

slight and transient the constitutional disturbances were after operation, and how rapid and complete was the healing of the incision.

It may be argued that measures less radical might have been tried before resorting to operative procedures; but with four, support was tried and found impracticable. Besides, it seems to me that when the surgeon can offer nothing but a truss to those unfortunates, it is a most humiliating confession of the limitation of the art which he practices. If the truss were properly constructed and applied and did its legitimate part, it would be a most welcome adjuvant; but the poor cannot afford expensive supports, and the cheaper article is worse than none at all.

With a man in possession of natural reason and judgment a truss may be worn with moderate comfort; but with the restive, growing child, unable to make known his wants, it may be an instrument of unbearable torture.

Herniæ will disappear, after a truss is worn a while, in young children. Yes; but according to the testimony of Astley Cooper, Malgaigne, Bryant, and others, it will almost invariably return when adult life is reached. In very many cases the truss is a prolific cause of varicocele of the cord and atrophy of the testis, by its pressure on the spermatic vessels, hence leading to impotence and diminished virility.

With those cases in which the generative organ lingers in its path downward, or has been drawn up more or less later, and by its incessant pressure, it excites inflammation of an adhesive kind, gluing the organ so rigidly to adjacent parts as, in the first place, to prevent a possibility of its descent towards its natural location, and, in the second, causing a sort of soldering together of testis, gut and sac in such a manner as to prevent a reduction of the rupture ever becoming possible, the patient being doomed to carry an enormous pendulous bag of his digestive apparatus between his legs for the remainder of his life.

The loss of blood is very badly borne by infants. With this operation, properly performed, there is none lost. With rigid antiseptics the peritoneum is safe from inflammation.

Every hernia, whether occurring early or late in life, is undoubtedly attributable to defective development at birth, and we all know that every species of malformation, whether of the osseous structure or the soft parts, is most successfully and easily dealt with at a very early age, no matter whether it be club-foot, cleft-lip, or anything else. With hernia it is a specially desirable period, as then the patient is in a constantly recumbent position for months, thereby giving the parts time to solidify, while the growth of the body, the rising of the trunk and the lateral expansion of the pelvis will tend to so alter the planes and curves of the inguinal region of the original vent that a later protrusion is scarcely a possibility.

The operation adds nothing to, nor does it take away. It is undertaken, not to restore what never existed, but to simply aid nature to perfect a process never completed.

It has been alleged that hernial operations entail the destruction of normal tissues. I deny it, unless we concede that every operation which involves the incision of the integument is destructive. Division and destruction of a part must not be confounded.

At a meeting, on April 8, of the Royal Society of Medicine and Surgery in London, Mr. A. E. Barker communicated the statistics of fifty consecutive operations for the radical cure of hernia without a death or a single complication unfavorable to the vitality of the testicle. The patients ranged from 3 months to 70 years old.

Parker, at the same meeting, stated that he had operated lately, as a rule, every time he discovered a hernia in infants, with most gratifying results. Mr. House reported twenty-five operations on patients under 12 years by divers methods, with cures in all except one, and no return of the rupture.

At the late congress of German surgeons, held in Berlin, April 12, 1890, Lauenstein, of Hamburg, presented the report of fourteen herniotomies performed in 1888, with but two relapses. McEwen was cited as having operated in eleven years, from 1879 to 1890, ninety-eight times, among whom were many children. He had no deaths, except one child, who was carried away by scarlet fever.

At the monthly meeting of the Société de Chirurgie in Paris, April 9, 1890, an animated discussion was held, at which Messrs. Richelot, Tuffier, Chappionniere, Marchand and Reclus separately and severally contributed reports of many cases on which they operated with success for ectopic testis, associated with hernia, in very young children. These quotations are from the proceedings of the medical societies of the three most progressive nations in the world, and the almost unanimous accord with which was received the reports of modern operations for the cure of hernia in early life by radical operation, is most gratifying and encouraging.

The tissues in early youth heal with marvellous rapidity, and hence the time occupied to seal the opening is only a matter of a few days. Certainly, if the little one inherit syphilis, scrofula, or other blood dyscrasiæ, the process of recuperation will be much retarded. It is not necessary that the baby be kept in hospital after operation. With ample fluffy dressings they will need changing only every few days; and though they will be quickly soaked with urine, I have found this to in no way interfere with rapid union.

In every case here detailed I found phymosis associated with the ventral protrusion. This adhesion of the glans with the prepuce in early life

I believe to be always physiological; but inasmuch as there has been some conflict of opinion with regard to this constituting a factor and as a contributory agency in producing hernia, I have in every child forcibly retracted the loose integuments and directed the parents to lubricate the glans and manipulate the parts until a liability to its relapse in the future is removed.

The real, enduring value of celotomy for radical cure must, to a certain extent, be estimated by the number of relapses, and whether, in such event, the protrusion may be more manageable by retentive apparatuses.

Among the avowed and uncompromising foes of every species of treatment which contemplates the incision into, or laceration of parts, it has been their charge that inasmuch as no operative procedure has yet been devised which will always ensure against relapses, none are justifiable. Superficially considered, this objection appears rational and logical, but on thoughtful examination and searching analysis its deception and its delusive character become only too apparent; for if its philosophy were sound and its premises impregnable, then, indeed, there would be little need of surgeons outside the domain of traumatisms, as in every variety of pathological lesions it is a rule, with few exceptions, that they return almost invariably sooner or later, the surgeon's manual efforts being directed towards alleviating a local condition without in the slightest manner making an impression on the constitution or central organs. Must we condemn the surgical management of strictures, of calculous disease, of tumors, benign and malignant, of eneurisms, of neuralgias, of stenosis of the digestive tract, of the various bone lesions, and many other afflictions too numerous to mention, simply because we can make no guarantees against relapses?

Hernia will occasionally return, no matter what operation is performed; but there are very many that will not, and even if we can cure only a moderate proportion a very great gain has been made. Further, it must not be forgotten that operations devised for their cure by radical methods on an extensive scale are very modern, dating only from the general adoption of antiseptics.

Though many of the objections directed against operations undertaken for the cure of hernia carry with them much force, yet, when applied to infancy and early childhood they will scarcely hold. In the matured adult the parts have assumed a more permanent and durable position. The elongated mesenteric ligament has undergone marked changes in its histological elements. It has become greatly hypertrophied and indurated. The canal has lost its obliquity and become greatly expanded. The sac has acquired adhesions with very delicate and important structures; and like woman, with her thoracic brace—the corset—their use, by habit and by its evil effects on her dorsal muscles, in time becomes a necessity, so with the truss; its wearer must feel a sense of insecurity after its removal, for a considerable period of time.

With the infant and child, on the contrary, its skeleton and structures are yet undergoing the evolution of development, and if faulty or defective, the time to remedy them safely, rapidly and permanently is while the parts are in their formative stages. This, I believe, has been demonstrated amply in other congenital lesions than in those seen in hernia.

In those cases in which a return of the mass is impossible and its steady increase a certainty; in those in which the funicular sheath of the spermatic cord is greatly distended, and the testis, with the intestine, are fused together, the only real, simple and sovereign remedy is operation.

A faulty descent of the testis—ectopic testis—is the foundation of all herniæ, I am confident. The testis, in its passage downward, forms attachments with the varied duplications of the peritoneum, which in time will surely lead to a weakness in the inguinal walls. As a consequence we seldom have a rupture without the testis or its adnexa sharing in the deformity, and the operation which removes the hernia contributes towards the full functional integrity of it.

I have not advised this operation in early life in those cases in which a truss can be comfortably worn. I am inclined to this custom for the present, until time will have tested the value of those operations which I have already performed. Many disappear under the truss in youth. Those cases treated in this manner which do not disappear, however, are sure to attain greater size with advancing years, liable at any moment to strangulation, soon acquiring such a volume that a truss is wholly useless, and leaving the patient an object of compassion and misery.

In conclusion it may be well to enumerate the varied stages of the radical operation, its technique, and the subsequent deportment of the patient after the parts are well united.

Inasmuch as but a very limited area of the soft parts is intruded upon, there is no shock following the operation. The fear always in mind with the elder surgeons, of the extension, upward, to the general peritoneum of inflammatory action, is efficiently eliminated by vigorous asepsis or antisepsis. I make an incision in the direction of the spermatic cord, beginning immediately over the central axis of the ring. I say ring, for there is no inguinal canal proper till the body has attained adult development. I now carefully divide the different tunics until the cord is reached, when, if I find an expanded, unclosed fascia propria, I press upward the gaping and descending viscera, gradually gathering in the loose margins of the spermatic fascia until the common line of the peritoneum is reached, when

I close in and approximate the divided serous surfaces with the buried suture of kangaroo tendon, as recommended by Dr. H. O. Marcy, of Boston. When I find very much separation of the pillars of the ring and considerable laxity about its aperture, I use silk; also in cases in which there is an independent sac composed of the fascia propria abdominalis, and where I need something which I can depend on for endurance and strength. Every sort of absorbable material is almost wholly useless when it is put on a strain, and especially in this situation. In dealing with the free ends of the suture after knotting I divide one and leave the other in the seam of the wound, for the purpose of temporary vent for drainage, and, besides, so that I may use it to withdraw the knot when the parts have solidly closed, when absorption and disintegration have liberated it, and I do not wish to take the chances of having a troublesome fistula to close later.

A troublesome experience has taught me to avoid the use of bichloride gauze on young children, as I have seen some of the most painful forms of dermatitis follow its use on their integuments; so that now we render our gauze simply aseptic by cleansing, with baking or boiling before using. I always insist that some sort of a compress be worn for at least six months after the operation, immediately over the cicatrix. For the remainder of the patient's life, after the upright attitude is assumed, I strenuously insist on the patient wearing a good, broad, strong belt which will pass around the girth below the cristæ iliæ, so as to shift the weight of the intestine swung by the mesentery from the spine to the pelvis.

Owing to the marked obliquity of the pelvis, the whole abdominal mass is thrown mainly on the lateral and anterior walls of the abdomen. Now, if this strain can be distributed by transferring it to the long base of the belly, a very substantial gain will have been made.

If, as with women, in whom we see so little hernia, the superincumbent weight of men's garments was borne more by the hips and less by the spine, the aponeurotic parts would not be so apt to give way. I have found, too, that hernia is altogether a much less frequent disease with the belt-wearing peasantry of certain nations in Europe, than among those who suspend everything from the shoulders. With many young children the mother will so adjust the child's waistbands that nothing further will be needed; but as he approaches adolescence and is required to commence active labor for a living, or to practice athletic exercises, then he must wear a substantial belt.

To finally epitomize my reasons for insisting upon the early operation for the radical cure of hernia, they are simply these: (*a*) No danger whatever attends the operation properly performed on the healthy child. (*b*) As the infant remains in the recumbent posture till nearly a year old, ample time is permitted for thorough union before a strain is put on the parts. (*c*) At no period of life is time of so little value to the patient. (*d*) In those cases in which the mass can not be returned owing to adhesions, the operation, if for no other purpose than placing the parts in a condition by which a repulsive deformity may be forever obviated, is always imperative, and no delay should be tolerated. (*e*) No special operation can be recommended indiscriminately, as no two herniæ are precisely alike; and hence the technique must be in every case adapted to the condition found. (*f*) A belt of some kind should be always worn after operation during the remainder of life.

WHAT IS THE PRESENT MEDICO-LEGAL STATUS OF THE ABDOMINAL SURGEON?

Read by Invitation in the Section of Medical Jurisprudence, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY WILLIAM WARREN POTTER, M.D.,
OF BUFFALO, N. Y.
CHAIRMAN SECTION OF OBSTETRICS AND DISEASES OF WOMEN, 1890.

The line of thought outlined in this paper, no matter how expressed, is intended to be suggestive rather than dogmatic—inquiring rather than assertive — as indicated by its title. The recent rapid advancement of the surgery of the abdomen has inevitably led to its separation from the general surgical field into a distinct specialty. It finds itself in a new environment, without traditions or statutes for its guidance, and hence with only a comparatively recent experience on which to found its legal or surgical status. For these and other reasons we may not speak in this place except suggestively or inquiringly.

That abdominal surgery now holds a place distinct and apart from other branches of the surgical art, need scarcely be argued here. That it must of necessity be considered a specialty appears reasonable, when we contemplate the nature of the organs dealt with, and the variety in the character of the operations upon these organs. The great point to be insisted upon is, that the lines that separate it from the other divisions of surgery are so well marked, that no matter how well a man may be equipped in these, unless he has had abdominal experience he has no right to enter its domain except under urgent necessity, where delay will lose life or endanger it less than the inexperience which proposes to operate. It is surprising that men without such experience, either practical or theoretical, will insist on attempting the work of reformed abdominal surgery, than which there can be nothing more delicately defined or exacting in all its details.

The inexperienced surgeon will hardly risk tenotomy for a deformed limb, or trephining for focal epilepsy; yet the most illiterate or inexperienced practitioner, but lately become a doctor, considers it his right to rush headlong into an abdomen with his bistoury, maul its contents with his soiled hands, bury the remains with a deceptive death certificate, and complete the farce, which is also a tragedy, by an after-pose before the community as a man who has accomplished something remarkable. This is the kind of work that has carried discredit into the domain of what is perhaps the most delicate branch of all surgery, needing for its success or justification a discriminate knowledge and experience not equalled in any set of surgical procedures.

THE PROPRIETY AND NECESSITY OF THE OPERATION MUST BE EXPLAINED.

The removal or interference with organs that have to do with the perpetuation of human life is in itself a serious business, while the responsibility of conservative procedures that shall in some cases preserve these where they would otherwise be lost, must be looked upon as entailing great responsibility, and as requiring a nice degree of discrimination not to be attained except through ample experience, special training, and much study.

Now, while the generative organs only are fundamentally dealt with in gynecology, the work of the abdominal surgeon has a far wider range. Abdominal surgery must deal with all or most of the organs having to do with the nutritive functions of the body — intestines, liver, kidneys, stomach, spleen, and pancreas. While interference or complications with some of these are more or less rare, still they enter into an estimation of the question as possible factors, and are not to be lost sight of in formulating the claims of this branch of surgery to a specialty. In dealing with these several organs for traumatic or pathologically diseased conditions it must always be remembered that they are hidden from the eye of the patient, their functions not generally understood by the laity, and the necessity of interfering with this or that diseased condition not properly understood. Herein arises the urgent reason for a more or less careful explanation of the propriety or necessity of an operation. This will in many cases eliminate the after possibility of recrimination on the part of the patient, and save the surgeon a deal of trouble and the opprobrium of misrepresentation. In doubtful cases, professional evidence of the surgeon's advice and opinion is to be urgently counseled.

Closely allied to the foregoing is the question of the consent of a patient or friends to an operation. A patient has an undoubted right to refuse operative treatment, however urgent or imperative the need. A patient's consent to the removal of the second ovary, or any after conclusion that the surgeon may deem wise in the interest of the patient, that might arise during the steps of the operation and must then be acted upon, had better be obtained beforehand. A woman's ovaries or uterus are no more to be removed without the consent of her husband or her own approval, speaking generally, than that same husband should be castrated without his own consent. Moreover, since the friends of a patient are more likely to cavil than even the patient, it were well to explain all to them likewise.

THE PREPARATION OF THE PATIENT. THE OPERATION. THE AFTER-TREATMENT.

Having dealt with the necessity of operation and its explanation from a medico-legal standpoint, the next to be considered in the order of sequence is the special preparation of the patient. It is admitted generally by abdominal surgeons that in order to insure success in abdominal work, a special preparation of the patient is necessary; this is, at least, so in all its essentials. An ignorance of the particulars of this preparation, no matter what the operator's skill in other respects, should bar him the right of attempting any abdominal operation. These details need not be entered into here; it is enough to merely refer to the important bearing they have in the equipment of the abdominal surgeon.

Having prepared the patient the next step is the operation itself. The anæsthetic is to be administered by an experienced and trustworthy anæsthetizer. Once into the abdomen the work is to be done speedily and carefully, having in view always the best interests of the patient, not the glorification of the operator—not to operate merely for the sake of doing something nor to unnecessarily prolong the narcosis. It may sometimes be, nay often is, necessary to carry an operation beyond the lines marked out prior to opening the abdomen, as I have previously hinted. Such being the case, it is especially to be urged that the operator hold this fact always in mind, and have provisional permission to extend the operation as far as in his judgment the best interests of the patient are subserved. Now, while an extension of a proposed operation may certainly be justifiable in the interests of the patient, the extreme of this proposition comes up in the right of a woman to refuse operation even to save her life, as for example in puerperal peritonitis. Tha law may say that suicide is improper when attempted by violence, yet it will not interpose and compel the consent of a patient to an operation to save life. Even if it should or could do so no surgeon would be willing to operate under such circumstances, where such contributing influences to the success of the operation as the cheerful assent of the patient, would be lost. But if voluntary suicide is wrong, enforced sui-

cide is much more so. A woman may be urgent in her demands for relief, while her husband perversely refuses to consent to surgical interference. Though the wife may possess the legal right to insist upon an operation, the husband's perverseness is among the most serious obstacles to contend with. Here, if anywhere, the law should interfere and compel the consent of the husband to permit his wife to exercise her own judgment in deciding, under expert advice, upon steps necessary to save her life. A man may, with as much reason, be justified in preventing assistance to his wife in rescuing her from his burning house, as to interfere with her personal prerogative in deciding any other question in which her life is involved. A similar set of questions are to be considered with reference to minors and guardians, and parents and children.

With the operation completed the after-treatment next claims consideration. If special training is required both to prepare the patient properly and to do the operation, it is equally necessary to enforce a special technique in the after-treatment. It is not sufficient that a trustworthy nurse who has had special training be left in charge; the surgeon himself must not only know what is to be done, but he must also do much of the work with his own hands. Herein consists the danger of grafting new methods unto old ideas. To illustrate: opium was the fundamental, next to the knife, of all ancient surgery. A surgeon would quite as soon have thought of doing an operation with his finger-nails, as to have omitted in the after management the use of morphia or an opium suppository. Now, if any one thing has been shown to be on the average dangerous in this branch of surgery, it is the use of opium in any form. That the older men, as a rule, find it difficult to bring themselves to an understanding of the fact is not strange; but in so far as they are unable to resist the temptation to administer opium, by just that much is their incompetence to manage these cases to be measured.

The like is true of the intra-abdominal application of chemical solutions, which are, under the misnomer "antiseptics," but too generally merely irritants. The idea of Listerism must not be carried chemically into the abdomen, if we would escape complications otherwise to be eliminated. Over refinement is as dangerous in its way as too little refinement.

So, after the operation, it is to be insisted upon that unless the surgeon is accorded absolute control of the patient, even to the point of making the family physician merely an agent in accomplishing what, in his judgment, is required from an operative standpoint for the patient's welfare, no responsibility as to results can be assumed. Indeed, it is best to have such understanding previous to an operation, and if there is demurring operation should be refused. When a surgeon is chosen to do an abdominal operation of any kind whatever, it should be done with a full confidence in his ability to manage the case from its inception to its completion, and interference with his wishes or directions should not for a moment be thought of or tolerated. If the results are then not satisfactory, from any bad behavior on the part of the patient, the friends, or the attending physician, the operator is not responsible.

An ethical question may arise in this relation in case, after an operation, the patient desires to discharge the attending physician and to retain the services of the surgeon who has been called to do the operation. This would place the surgeon in the position of being accused of sacrificing the patient to the "Code" if he should refuse to attend, and at the same time subjects him to the criticism of professional thievery if he continues in charge of the case. Since these refinements would scarcely serve one in a court of law; this point should be thoroughly explained to the patient previous to the operation, and the understanding reached that the surgeon for the time being accepts charge of the case simply as the pilot who steers the vessel through dangerous waters, to resign as soon as she has reached and safely passed the danger line. On the other hand, operations for incompetent men who refuse after assistance, although unable to take intelligent care of the patients themselves, should be avoided, as should likewise be operations in which a man with no experience whatever seeks the assistance of a competent operator in order to have the name of operating. In these cases, if the patient recovers the "assistant" gets no credit; if the patient dies he gets all the blame.

HOSPITAL TREATMENT.

The hospital treatment of abdominal cases needs some elucidation. As a rule a general hospital is not an ideal place in which to open the abdomen, yet they are usually equipped with many conveniences that facilitate the work for the surgeon, and so he often operates there on that account. Private hospitals are less objectionable, and many such are without reproach in this regard. The technique of that management of such cases which is to-day conceded to be the best, is little understood, speaking generally, by the physician in whose charge they have been previously, or for that matter by the general practitioner commonly; hence the great tendency to seek the shelter of either the public or private hospitals. Such being the case, it is well to take cognizance here of the fact that very unjust strictures often arise from ignorant criticism of the management of individual cases in hospital, and a feeling occasionally is excited both against the hospital and the surgeons connected with it. This was lately illustrated in a trial of a prominent

operator in the State of New York, upon an indictment for manslaughter. A woman who had been operated at the defendant's private hospital, desired to go home on the fourth or fifth day; her friends coöperated with her in the desire and actually did so remove her. She died of septic peritonitis soon afterwards, hence the indictment and trial. It may be proper to add that a prominent journal, of a hitherto reputable standing, lent its influence to accomplish the ruin of this surgeon, thus compromising the good name of legitimate journalism. The surgeon happily was vindicated by the court and jury.

THE TRANSPORTATION OF CRITICAL CASES.

This brings me to remark that the removal of patients who are suffering with peritonitis, ruptured tubal pregnancy, gunshot or stab wounds of the abdomen, and other critical conditions or injuries, may well receive the attention of the abdominal surgeon; for they often require transportation to more convenient and healthful environs before operation. If this be not done with care and with due regard to the particular disease or injury involved, it may exert an abiding influence for harm upon a subsequent operation. Our entire ambulance system may, therefore, be regarded with a jealous eye by the abdominal surgeon, and when possible he should superintend in person the removal of cases that he proposes to operate upon.

There are many other important questions that have an intimate relationship to the medico-legal status of the abdominal surgeon, *e.g.*, the operating for irregular practitioners; operating at a distance from home, and leaving incompetent persons in charge, etc., but time warns me that I must not dwell.

THE AFTER-CARE OF SPECIMENS.

As a last consideration in this group of thoughts, therefore, I desire to bring to the notice of the Section the necessity of careful guarding of the specimens removed. It is a well known fact that after a growth has been preserved in alcohol, it becomes distorted, decreases in size, and that the original lesion for which it was removed is often unrecognizable. If specimens of this sort should fall into the hands of an ignorant patient, one capable of being wrought upon by a malevolent medical or surgical "brother"—Heaven save the name—untold mischief may result. There is yet a feeling rife in the bosoms of some operators that they, alone, must hold majestic sway of the world's operations, and that any one who also attempts to do the work in which they are engaged must be put down at all hazards. They are members of our medical societies, they are usually subscribers to the "Code," are generally prominent in the affairs of church, and are yet little better than professional blackmailers. They scruple at nothing to cast disrepute and discredit upon other men's work, stooping even to get hold of specimens to misrepresent them. The spirit that applied to Atlee the title of "the greatest rascal in Philadelphia" still stalks abroad, and that which prophesied the penitentiary and a shaven head for another of Philadelphia's famous operators is still to be recognized and to be scotched. I deem it of the first importance that specimens should not pass into the hands of patients, and that they should be either kept strictly away from the laity or, if that is impossible, destroyed.

CONCLUSIONS.

The factors, then, that enter into the inquiry, "What is the medico-legal status of the abdominal surgeon?" and that largely determine that status, may be grouped and summarized as follows:

1. The operator's ability. What has been his apprenticeship, what his surgical aptitude, his experience, his fertility of resource — in short, his abdominal instinct?

2. The propriety of the operation. Has this been established beyond reasonable doubt, and have its necessity and dangers been fully explained to the patient and his or her friends; or, in case of minors, to guardians or parents?

5. The consent of the patient. Has this been obtained in a legal and binding manner, and have the near friends also consented; and in case of minors have the parents or guardians legally consented, and is there indubitable proof of this?

4. The preparation of the patient. Has this been adequately done in accordance with the modern rules of abdominal surgery?

5. The anæsthetic. What form of this was used, and was the anæsthetizer experienced in the administration of anæsthetics? Were the proper precautions taken to determine the comparative safety of the anæsthetic to the patient?

6. The operation. Has it been performed with that skill that the present light of the science would demand?

7. The after-treatment. Was this in all its details scrupulously and zealously carried out under the eye of the operator? Was a skilled nurse employed who faithfully attended to her duties? Did the attending physician yield absolute control to the operator?

8. The environment. Was the operation done in hospital, public or private, or at the home of the patient?

9. The transportation of the patient. Was the patient removed prior or subsequent to the operation? If so, under what circumstances? Was it with the advice and consent of the surgeon, and under his superintendence?

On a trial for manslaughter resultant from a disastrous abdominal operation, some or all of these questions would form proper subjects for inquiry by the court, and therefore appear ger-

mane to the purposes of this discussion. Doubtless others will be dealt with by the authors who jointly appear in this debate. I will therefore conclude what I have to say in a few brief sentences bearing on *the rights of patients and operators*.

A patient has the right to refuse operative treatment, however urgent and imperative the need.

After operation the patient has the right to refuse further attendance or treatment from a physician or surgeon who may have been in charge, either as operator or otherwise.

The patient, if sane, has the right to be removed at any time she may elect. Her action or movements, her acceptance or non-acceptance of a course of treatment by her physician are matters of her own option over which he can exercise no legal control. She can go counter to or in accord with his advice as she may will. He cannot exercise over her person any authority beyond that to which she consents.

For any act of duress the physician could be held legally liable.

In the matter of the husband, his legal control over the wife would not prevent her from submitting to surgical or other treatment at the hands of a physician of her own choice, but with her consent the husband would have the right to direct or control her movements in the face of any protest of the physician.

The same principles in a modified form apply in cases where there are guardians.

From the foregoing it will be seen, that the physician is absolutely helpless in all such cases as he cannot reach and control by moral suasion. This places the abdominal surgeon at a peculiarly trying disadvantage, for he is in the rather anomalous position of incurring great legal responsibility in cases where he has few legal rights or privileges.

284 Franklin Street.

THE USE OF COMMERCIAL MILK SUGAR IN INFANT-FEEDING.

Read in the Section of Diseases of Children at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY E. F. BRUSH, M.D.,
OF MT. VERNON, N. Y.

Some time ago a gentleman came to me, who had been sent by his physician for me to discover, if I could, what the trouble was with the milk which he was feeding his baby. He brought a sample with him, it was very slightly gray in color, and the caseine was precipitated in a fine granular deposit, the odor was slightly disagreeable. On inquiry, I found the mixture to be that known as the "Meigg's mixture" as recommended by Dr. Robert in the article on "Infant Feeding" in Keating's Cyclopedia. After a thorough investigation as to the milk and cream, I could find nothing wrong with these constituents of the mixture. I then ascertained that he had been using the mixture for some weeks, and that he had not observed the foregoing change before. Then I questioned him as to what new conditions were existing when this change took place and I learned that he had just procured a new supply of milk-sugar. "But," he said, "It cannot be that for I got it where I have always bought it." I told him to go to some other store on his way home and get another supply and try that, and report to me the result. He returned in the afternoon and told me that the whole trouble had been in the sugar; because, when he went home and used the second lot, the mixture appeared all right, and to assure himself that this was the case, he again mixed a quantity with the first milk-sugar and found the same change taking place in the food mixture. I have ever since exceedingly regretted my foolish oversight in not securing the troublesome sugar. I thought I could look the matter up in the books and find there what the trouble was, but after diligent search I found that there was practically no literature on this subject. By this time the man had unfortunately thrown away the bad sugar. I have been ever since trying to find out what was in that sugar. It was purchased at a reputable first-class drug-store and the proprietor, I know, deals only with reputable high-class firms. I could not get a sample from him because he had returned it to his wholesale supplier when his customer made his complaint. Since then I have found that we know very little about this highly recommended constituent in mixtures for the artificial feeding of infants. Hahnemann discovered years ago that the sugar of milk had the least appreciable effect on the human system of any substance he had tried, and hence, he recommended it as a vehicle for the administration of medicine. Previous to this its use was very limited and its manufacture was confined to Switzerland. Now, however, with our pepsine powders, tablet triturates and baby-foods it has become one of the regular articles of commerce, and its consumption is computed by tons; in short every creamery in the country where cheese is manufactured, milk-sugar is one of the by-products and large quantities are still imported. It is found in the wholesale market in large cobs with a stick running through the centre resembling the barley-sugar of our youth and also in coarse irregular crystals resembling somewhat coarse salt, and in the retail stores we find it in the fine powdered condition. The market price last winter at the time of my inquiry was 14 to 18 cents per pound for the crystal cobs and 12 cents for the powders.

No wholesale man of my acquaintance could enlighten me as to this difference. It is well known that milk-sugar is one of the difficult articles to powder properly, and there is considerable waste in the crystal owing to the stick on which it is crystalized. This is not a scientific point, but it is one of the things which I learned during several years of intermittent investigation and it may be interesting to some people.

One of the faults of physiological chemists is that they make no distinction between a substance existing in a natural condition and that substance eliminated and isolated by chemical means. Thus, the sugar of milk of commerce and the sugar of milk as it exists in that fluid are regarded by the chemist as one and the same thing. Hence, the physician has been led into the error of thinking that as the sugar in milk is that designed by nature as the best saccharine nutrient therefor, the isolated sugar must fulfil the same function. This is not the truth. Sugar of milk in that fluid is all assimilated, and the milk-sugar of commerce when added to baby food is eliminated both by the kidneys and bowels. This, I have demonstrated by numerous experiments. I have never found sugar present in the urine or fæces of babies fed at the breast, but in three cases of infants fed with mixtures containing commercial milk-sugar to the amount of three ounces or more in twenty-four hours (as in Meigg's mixture) I have always found sugar in the urine and fæces demonstrated by Fehling's test. The fæces I macerate in boiling water, boil the filtrate and refilter, testing the final filtrate. I have never endeavored to ascertain the exact amount of securing sugar, but the reactions have always been definite and well-marked. To-night I received two cubic centimeters of urine from a baby 10 months old fed on Meigg's mixture, and this tested with Squibb's standard Fehling's solution indicates .025 per cent. of sugar. Therefore instead of being of value as a nutrient it must be harmful, to what extent, I am not at present prepared to say. A substance that is not broken up in the system but eliminated without change, if it be not an absolute poison will produce little if any appreciable immediate effect. Hence, Hahnemann was right in his observation as to the effect on the system of administered milk sugar. Routh also in his work on "Infant Feeding" recommends milk-sugar because it undergoes "fermentation less readily than the ordinary sugar." This statement has been repeated by nearly every one who recommends the sugar of milk as an infant food. I think this statement of Routh would be rather against any article of food because any substance that spoils quickly or responds readily to any of the fermentation changes will also respond quickly to the digestive ferments.

Relating to the fermentation of milk-sugar, I have made the following experiment. I took five test-tubes, and in each placed two drachms of a saturated solution of milk-sugar, each tube containing a solution from a different sample. Into each tube I dropped two drops of brewer's yeast; in twenty-four hours each sample responded to the test for alcohol by chromic acid. With these five tubes I placed at the same time a sixth containing a solution of cane sugar of the same strength as that of the milk-sugar solutions; in this solution also I dropped two drops of brewer's yeast. The cane sugar solution set up active fermentation in five hours. I allowed the six solutions to remain in a living room with the tubes open for three months. When examined after this length of time the water had completely evaporated leaving the tubes dry. The five milk-sugar tubes contained each a large mass of dried mould and some exhibited crystals of sugar on the side of the tube; while the cane sugar tube contained very little residuum. I added to each tube two drachms of water, the original amount of fluid, and I found that the cane sugar had entirely disappeared, while the milk-sugar tubes were each rich in sugar. And now after three weeks in the second solution with all its gathered mould and dust, the sugar is still there. So Routh was right, it will undergo "fermentation less readily" than almost anything fermentable.

Another question that has occurred to me in connection with commercial milk-sugar is, how much sugar does a given quantity of the article purchased really contain? In view of this inquiry I made it a point at one time to buy five cents worth of milk-sugar in every drug-store I came to and thus I collected many samples. Out of these many samples I selected five and submitted them to the tests prescribed by the United States Pharmacopœia. First, solubility. According to the Pharmacœpia milk-sugar is soluble in seven parts water at 59° F. Sample No. 1, not completely soluble, after twelve hours a white precipitate surrounded by a black ring at the bottom of the tube; No. 2, slight black precipitate, enough to cause a decided opacity on agitating the solution; No. 4, solution remained slightly opaque and deposits a dark brown precipitate. No. 5, solution perfectly clear with a few grains of undissolved sugar at the bottom of the tube.

Tests for the presence of cane sugar according to the Pharmacopœia: "If one part of sugar of milk be sprinkled upon five parts of sulphuric acid contained in a flat-bottomed capsule, the acid should acquire nothing more than a greenish or reddish, but no brown nor brownish black color within an hour." The following are the results of my application of this test: From portions of the samples above referred to, No. 1, blackish-brown; No. 2, dark brown; No. 3,

reddish brown; No. 4, light red; No. 5, light red. The Pharmacopœia also states that it is insoluble in alcohol, ether or chloroform. I found sample No. 1 lost 5 grains from 3⅜ drachms by repeated washing with sulphuric ether and 11 grains by washing with absolute alcohol. No. 3 lost half a grain by washing with sulphuric ether. I did not test the other solutions in this manner, but I sent to James H. Stebbins, Jr., an analytical chemist residing in New York, samples No. 1 and 2 of the foregoing for analysis as to the quantity of sugar contained in each sample. I received from him the following reply:

Dear Sir: The samples of milk-sugar marked as below submitted to me for analysis contain, No. 1, 94.38 per cent.; No. 2, 98.49 per cent.

These are specimens brought in the open market from reputable druggists, and such as are sold to the consumers for infant feeding. When we come to know the manner in which milk-sugar is procured, the only wonder is that it does not contain much less sugar than is indicated by the above analysis. The milk is collected and allowed to stand for several hours in cooling vats; then, it is conveyed to a large tank to be coagulated. Various substances are used to hasten the coagulation. According to Flint[1] vinegar, cream of tartar muriatic acid and sour milk can be used to produce coagulation, but of course rennet is the most popular and most commonly used agent. This, as we all know, is the fourth stomach of the calf. The directions given for preparing rennet are as follows: "Care must be taken not to use too much water in cleaning, wiping lightly with a moistened cloth until it is clean is the better way. If then blown up like a bladder and hung up and dried, it will retain its power for coagulating milk for years." Pieces of this rennet are steeped in warm water, and the solution from it is added to the milk and then the milk is raised to a temperature above 100° and kept at that until coagulation takes place. Then the whey is drawn off and this whey is evaporated by boiling to one-fifteenth of its original bulk, leaving a brown, viscid, sweetish saline mass. This is dipped out into a tub where the sugar will crystallize in twenty-four to forty-eight hours. These crystals are known as "sand;" this sand is piled on to racks from which the water drains off. The sand is again boiled in water to a sufficient concentration and the sugar is allowed to crystallize in sticks. It will thus be seen that many of the other crystallizable bodies contained in milk would be included in this crystallization as well as the alkaloids of ptomaines.

I am exceedingly sorry that I have not had time to follow out all the experiments that have been indicated to me while making the few hurried inquiries relating to a subject, which I am positively sure will change the views of many gentlemen who have taken me to task for recommending the use of pure cane sugar as an addition to infant food when a sugar addition is needed. I really think that the addition of any sugar to good milk is overestimated.

[1] Milk Cows and Dairy Farming.

REPORT OF TWO CASES OF SEVERE VOMITING OF PREGNANCY.

Read in the Section of Obstetrics and Diseases of Women at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May 20, 1890.

BY E. W. MITCHELL, A.B., M.D.,
OF CINCINNATI, O.

It is the purpose of this paper to present merely a clinical study of two cases without entering upon the voluminous and oft-rewritten literature of the subject.

Case 1.—Mrs. P. S., of nervous temperament, delicate from childhood, but subject to no special organic disease, married at the age of 26, and became pregnant within a few months. Nausea and obstinate vomiting developed early. Apparently nearly all nourishment taken was rejected; she soon became so much prostrated as to be confined to her bed. Her weight in a few weeks fell from 102 to seventy pounds. Local examination revealed the signs of an early pregnancy, a conical and very long cervix, no displacement or peri-uterine tenderness. Under treatment by rest in bed, careful regulation of diet, (most of the time an exclusive milk diet), bromide of potash, and oxalate of cerium, the vomiting was somewhat mitigated and nutrition maintained. At three and a half months the vomiting ceased, she regained most of her weight, and was in fairly good health during the remainder of her pregnancy.

Following a natural, but tedious labor, she had post-partum hæmorrhage, and on the third day the development of puerperal septicæmia. For many weeks she hovered between life and death, with a very high temperature and extremely rapid pulse. Recovery was tedious and imperfect, the patient being left with a weak and irritable heart, and a shattered nervous system.

Six years later, (in 1888), having but partially regained her health she became again pregnant, and as before soon began vomiting and to lose strength rapidly. More distressing even than the vomiting, were constant nausea and gastralgia. There was no uterine displacement, no peri-uterine tenderness; there was about the os the usual softening except at the point of a laceration sustained in the first labor, which was hard. The urine contained no albumen, casts, or sugar.

After three weeks treatment upon the same plan as before, during which there were variations for better and for worse, but a gradual loss of strength upon the whole, it was decided, in

consultation with Dr. T. A. Reamy, to induce abortion. This decision was made not only upon the threatening character of the vomiting present, but upon the previous history of ill health, and the rapid loss of strength. Since the nausea and vomiting were no worse than in the first pregnancy, she might have survived and as before ceased vomiting at the end of three or four months. The chances, however, in her already enfeebled condition, of living through another pregnancy and parturition were too small to justify the risk. The pregnancy was now so far advanced that it could (in this case) be positively diagnosed; to wait longer was to incur great danger of the patient becoming too far reduced to rally after an abortion. As the patient's condition was such as to allow some delay, electricity was selected as the means, being considered the safest although slower and less certain than some other methods.

A daily *séance* of fifteen or twenty minutes of the Faradic current as strong as could be borne comfortably was given for six days. One pole was placed over the abdomen, the other, (a uterine sound) introduced (with antiseptic precautions) into the cervix—not through it. Soon after the sixth application uterine pains with slight hæmorrhage came on, and the fœtus was expelled in about five hours. The placenta not following promptly two fingers were introduced and the already loosened placenta easily removed. A few adherent fragments were removed by the curette and the uterus irrigated with a $\frac{1}{3000}$ bichloride solution. The fœtus was apparently of about twelve weeks' gestation. After the third or fourth application of electricity there was an amelioration of the vomiting, complete relief after the abortion, and prompt recovery to as good a state of health as preceding the pregnancy.

Her general health has since very considerably improved.

Case 2.—Mrs. C., æt. 27 years, a slender brunette of nervous temperament, has never been very strong; prior to marriage had been treated for "falling of the womb" and "ulceration," and had two attacks of "inflammation of the bowels"—probably pelvic peritonitis. Came under my care, (having recently removed from a distant city), June 10, 1889. Married two years; one child, nine months old.

The first three and a half months of her first pregnancy had been marked by very severe vomiting, with emaciation and prostation sufficient to confine her to bed. It had ceased at the end of that time and she had been well during remainder of pregnancy. Labor natural; convalescence prompt and good; general health better since than before. Menstruation returned four months after delivery; was regular up to period due May 8, which did not appear. Two weeks later began to have vomiting, which grew gradually worse. At the time of my first visit she was vomiting after each attempt to take food or drink with occasional retching when nothing was taken. Stated that she had been vomiting and retching almost incessantly for over two weeks. The countenance wore an anxious expression and was slightly jaundiced; tongue coated, with red margins; breath offensive; slight salivation; had lost much weight; complained of backache, severe pelvic pain, free leucorrhœa; bowels constipated; vesical tenesmus; temp., 99,° pulse 90, fairly strong. There was some tenderness over epigastrium. She had lost much sleep.

Vaginal examination: uterus enlarged, corresponding to six or eight weeks' gestation, not displaced; cervix lacerated on one side, with deposit of some cicatricial tissue in angle of rent; great tenderness to pressure about whole vaginal vault; no erosion of os.

Ordered nothing to be taken by mouth except carbonic acid water and oxalate of cerium, gr. 4, every three hours; *per rectum*, "beef peptonoids" with chloral hydrate and bromide of potash, each gr. 30.

11 P. M. Rectal injection not retained; vomiting and retching violent every few minutes; much exhausted; complains of "pain in the womb." Ordered, nothing per os; an opium suppository, which gave relief in almost half an hour, when an injection of 2 oz. of beef peptonoids was retained. Rested well until 4 A. M. when bowels moved and vomiting recommenced.

June 11. Gave in morning vaginal douche of hot water on account of the peri-uterine tenderness; rectal injections not retained; vomiting and retching so incessant and suffering so great that gave morphia hypodermatically, gr. $\frac{1}{5}$ (which gave prompt relief), and in the afternoon an opium suppository followed in an hour by an injection of peptonized milk which was retained; vaginal douche repeated followed by packing of wool saturated with boro-glycerine. In four hours rectal injection of peptonized milk with bromide and chloral āā gr. 30, repeated. Temp. 99°, pulse 90. Injection not retained. During evening was not vomiting and felt stronger. Slept from 11 to 1 o'clock.

June 12, 7 A. M. Vomiting began again at 1 A. M., temp. 99° pulse 90. Still takes nothing by mouth; retching not quite so severe as yesterday; given morphia hypod., gr. $\frac{1}{4}$, to be followed in one hour by wine-glassful of peptonized milk. 11 A. M. Has slept a little; milk was immediately vomited; retching occasionally. Morphia repeated; rectal injection, 2 oz. peptonized milk with bromide and chloral āā gr. 30; vaginal douche, followed by packing; ordered bromide of potash, gr. 4, with half wine-glassful of iced champagne every two or three hours.

Rectal injection retained. 5 P. M. She had rested fairly well up to 3 P. M. Now vomiting mucus streaked with blood; temp. 99° (ax), pulse 90; the vomiting is not for some little time after taking the champagne and bromide; ordered, ice-bag kept on hypogastrium; champagne and bromide continued, also the following suppository *per vaginam*; ext. opii, gr. 1, ext. cannabis ind., ext. belladon. āā gr. ½. For two hours after applying the ice-bag had no vomiting. 11 P.M. Again retching violently, and vomiting up mucus streaked with blood; hypodermatic injection of morphia, gr. ¼ given. In few minutes relieved and a little hot water was retained. Rectal injection of peptonized milk at 6 P. M. was retained; now repeated, but not retained.

June 13. Has kept on ice-bag and taken champagne and bromide; at 4 A. M., rectal injection, (not retained), peptonized milk and a suppository *per vaginam*; at 7 A. M. vaginal douche of hot water and one above suppositories *per rectum*. 12 M. Has retched and vomited a little; champagne and bromide retained, and enjoyed by patient; nothing else given by mouth, is brighter and a little stronger, temp. 98° (axillary), pulse 90. Urine (as throughout) contains neither albumen, casts or sugar, somewhat diminished in quantity. Rectal injection of peptonized milk with bromide and chloral āā gr. 30, (not retained). 10 P.M. Again vomiting and retching violently, seems greatly prostrated; anxious expression; seen by Dr. Reamy in consultation, who introduced the index finger into cervix. Champagne and bromide and the suppositories, *per rectum*, continued; ice-bag put on nape of neck.

June 14. Slept fairly well; vomited twice only during night; had two supositories during the night; feels better; temp. 98°, pulse 115. 12 M. Has twice retained 1 oz. of milk, with champagne and bromide; suppositories *per vaginam* every three hours. 7 A. M. A little retching occasionally, no suppositories during afternoon.

June 15. Rested well; is brighter and stronger; vomited twice during night, but not violently; retained peptonized milk; ice-bag kept to nape of neck; bromide and champagne continued; suppositories given twice during night and in early morning. 7 P. M. Retained milk given in small quantities; very little vomiting.

June 16. One severe attack of vomiting; two suppositories during day; other treatment continued.

June 19. Has continued to steadily improve, taking milk in small quantities; a suppository once or twice daily; no vomiting, occasional nausea; diet enlarged a little.

June 20. Stopped bromide and suppositories; milk, ice-cream, and beef-steak, all retained; has a slight uterine hæmorrhage.

June 21, 5 P. M. Free hæmorrhage, uterine pains; fœtus already expelled and lost; placenta in cervix, removed by fingers, a few adherent fragments removed by curette and uterus washed out with carbolized solution. Placenta was apparently about eight or ten weeks. Convalescence was good. Some three or four weeks later complained of pelvic pain and back-ache.

Examination revealed subinvolution of vagina and uterus, slight prolapsus, and a tender mass to the left of the uterus the size of a hen's egg. After several weeks of treatment by douches, tampons and galvanism, involution was complete, position of uterus about normal, the mass greatly reduced in size, not tender to touch; the patient free from subjective symptoms. She has since remained well.

When so many remedies are used as in this case it it difficult to decide as to the real effect of any one. Bromide of potash and chloral *per rectum*, so highly commended by Dr. Busey, (*Amer. Journ. Med. Science*, 1878, page 140), and others, had little effect in this case.

Rectal feeding was in this case partially successful, but the nutrient injections were only retained when she was under the influence of opium.

One application to the os of nitrate of silver was made, but not repeated because no apparent benefit followed, and there was no inflammation or erosion. Ether spray to hypogastrium was also without benefit. The ice-bag gave so much relief that the patient clung to it almost constantly after its first application. It did not, however, stop the vomiting, except for a short time at first. The iced champagne was very grateful to the patient and was retained when other things were rejected.

The only remedy which stopped the vomiting was opium, by suppository or by hypodermatic injection of morphia. Vomiting would, however, return as soon as the effects wore off, and it was necessary to gradually increase the dose. In some reported cases, it has failed to control the vomiting, or finally loses its effect when it has been successful at first.

Except as stated in the report, remedies by the mouth were avoided. When the case has reached this stage to persist with internal remedies is not only useless but aggravates the trouble.

Since Copeman reported his success with the method, (*British Medical Journal*, 1875), dilatation of the cervix by finger or instruments has been often used with success. So often, indeed, that Dr. Gill Wylie claims that rigidity of the cervix is nearly always the cause of the vomiting, and that the cases of failure are due to the dilatation not having been done thoroughly enough. When the first dilatation fails, he repeats it. (*Medical Record*, 1884, "Trans. Amer Gyn. Soc.," Vol. 13, page 259.)

In discussing an able paper upon the subject

by my friend, Dr. G. S. Mitchell, in the Cincinnati Obstetrical Society, Dr. Reamy reports that since 1872 he had so treated thirty cases, with success in two thirds. He at the same time points out that the cases adapted to the treatment, and in which it is successful are those in which there is rigidity of the os. (See *Cin. Obstet. Gaz.*, 1885, page 118.)

Abortion not unfrequently follows, as in this case, and hence the procedure should be reserved until other means have failed, but not delayed until the patient is too greatly exhausted.

As bearing upon etiology we may note in both cases the absence of displacement. In each a lacerated cervix with some cicatricial deposit. The softening of the tissues about the *os externum* is about as much as we are accustomed to find at the corresponding periods of pregnancy, except just at the point of laceration. Both had histories of preceding inflammatory attacks. Both were delicate women of nervous temperaments. In neither was there any evidence of "endometritis gravidarum," to which as a cause in some cases attention has been drawn by Veit, Ebell, Jaggard and others, the placentæ in both being quite healthy, and neither had any history of endometritis.

The tubo-ovarian disease discovered in Case 2, may have existed previous to the pregnancy, or may have developed after the abortion. If it pre-existed it may have played a rôle in causation. Case 1 had suffered much of indigestion since the illness following her first confinement, yet her vomiting was less severe than in Case 2, who had no history of previous gastric trouble.

There has been in neither case any history or physical sign of tuberculosis. Neither case presents a strumous diathesis.

GLANDULAR HYPERTROPHY AT BASE OF TONGUE. LINGUAL TONSIL. CASE REPORT.

Read in the Section of Laryngology and Otology at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY A. B. THRASHER, A.M., M.D.,
OF CINCINNATI, O.

It is not an unusual thing to find hypertrophy of the glandular tissue at the base of the tongue. When in a normal condition this region is crowded with glands which are large in comparison with the other lingual glands. But in the case which I report to you to-day the tissue, in size and appearance, was a real lingual tonsil, as can easily be seen from the photograph which I herewith present to you.

Mrs. H., æt. 44, was sent to me in May, 1884, by her family physician, Dr. DeWitt, of Mt. Auburn, for the removal of a tumor at the base of the tongue. When young she had been quite delicate and menstruation had been delayed until her nineteenth year. About this time she had a severe attack of "sore throat," the nature of which I was unable to more than conjecture, which left her with a bad cough and a sensation of a "lump in the throat." Her general health then grew better and after about two years her cough ceased, but the feeling as of a foreign body in the throat remained. This, however, did not give rise to much annoyance until a few years prior to consulting me, when the "lump" seemed to increase in size and occasioned much disturbance. Her voice grew thick and her articulation became very indistinct. This was so marked that many of her words could only be understood by noting the connection. She suffered most from choking while eating. The throat seemed to not readily grasp the bolus of food, and swallowing became a source of great anxiety.

The choking on deglutition grew worse, and would at times produce distressing dyspnœa, the sufferer "growing black in the face," as forcibly expressed by her daughter. Solids and liquids would both produce choking, although she thought solids gave her the more trouble.

The family had grown accustomed to these choking spells and thought little of them, and in like manner they treated the changes in voice.

After a more alarming attack than usual Dr. DeWitt was asked to examine the throat, when he at once discovered the tumor and referred her to me for operation.

Mrs. H., on consulting me, was poorly nourished and anæmic. Her voice was muffled and indistinct. On examination of the throat a tumor was easily seen on the base of the tongue just anterior to the epiglottis. The growth presented quite the appearance of a child's tonsil, and was perhaps a half inch in diameter and of about equal elevation. The surface was smooth and firm to the touch, and there was at the time some surrounding inflammation. There was no hypertrophy of the glandular tissue between the pillars of the fauces or at the pharyngeal vault.

I slipped a loop of No. 5 piano wire around the base of the tumor, drew the wire tight, then turning on a current from my cautery battery, drew the heated wire through the hypertrophy, making a clean, bloodless cut. The wound healed kindly and the patient experienced no further discomfort. I had a section of the growth examined by a competent microscopist, and he pronounced the tissue quite like that of the faucial tonsil.

I examined the patient again this March and there is no evidence of a return of the growth, and she has had no further difficulty in articulation or deglutition.

MEDICAL PROGRESS.

TENDON REFLEXES.—At the Ninth Congress of Internal Medicine DR. STERNBERG, of Vienna, read a paper on this subject, based on observations made on 1,500 patients in the clinics of Professor Meynert and Dr. Redtenbacker. The object of the experiments was to determine the "components" constituting the tendon reflexes, that is, the effects produced by shaking of the muscle, the tendons, the bone, etc., and to separate these various phenomena from each other. In this way he succeeded in showing that the so-called tendon reflexes consist of two phenomena, namely: a bone reflex and a pure muscle phenomenon, which, most probably, is also a reflex. The bone reflex consists in the fact that a shock to the bone, particularly in the direction of its longitudinal axis, irritates the nerves of the periosteum and the articular surfaces, and this produces a contraction of all the muscles belonging to the bone. The muscle reflex consists in the fact that a stretched muscle becomes contracted when a shock is transmitted to it in the longitudinal direction. The tendon only plays a mechanical part. No reflexes originate from the nerves of the tendon. The existence of reflexes of the fascia cannot be proved. In contractures occurring after localized cerebral affections in various diseases of the spinal cord and in articular processes, the tendon reflexes are invariably increased. In contractures which occur in large cerebral hæmorrhages, cerebral tumors and abscesses, uræmia and meningitis, and paralysis agitans, the tendon reflexes are never increased, and very frequently are diminished. These two forms of contracture can occasionally be distinguished by the tendon reflexes.—*Brit. Med. Jour.*

RESEARCHES ON RABIC VIRUS.—DE BLASI and TRAVALLI (*Riforma Medica*, 1890), have recently made some observations upon the effect of different substances in lessening or overcoming the virulence of rabies. Control experiments were made in every instance and a like quantity of fluid was injected into the abdominal cavity. The method used was to excise a small portion of the spinal cord of a rabbit dead of rabies, make an emulsion, mix it with the substance under examination and inject this into the abdominal cavity. The known effect of light and heat upon the rabic virus would lead one to think that it would be easily affected by chemical action, and such was found to be the case. The acids proved to be very active in destroying the poison, a 5 per cent. solution of hydrochloric acid destroying the infectious principle in five minutes. The same result was reached with salicylic acid, while lemon juice destroyed the virus in three minutes. The writers observe that lemon juice has long been a popular remedy in dog bites with the people of Italy. Creolin also proved efficient in a 1 per cent. solution, after an exposure of three minutes. The least efficient of all the substances examined were carbolic acid, iodoform and iodol. The former required fifty minutes in a 5 per cent. sol., one hour in a 3 per cent. and two hours in a 2 per cent.

ANTIRABIC INOCULATION AT PALERMO.—Statistics published in the *Riforma Medica* of May 20 by DRS. L. DE BLASI and G. RUSSO TRAVALI show that 156 patients were treated in the Antirabic Institute at Palermo between March 1, 1889, and the end of February, 1890. In 86 of these it was proved experimentally that the animal which inflicted the bite was rabid; in 2 others the same conclusion was drawn from the fact that persons bitten at the same time and not treated died of hydrophobia. Of the whole number of patients 143 were bitten by dogs, 7 by cats, 1 by an ass, 1 by a mule, 3 by calves, and 1 by a rabbit. The variety of animals is greater than is usual in such reports, the case of the rabbit being especially remarkable, inasmuch as the manner in which it had contracted the disease is unknown. Drs. de Blasi and Travali say that the case is the first one recorded in which a rabbit has been the subject of rabies "of the street." None of the patients died, and in the three years during which the institute has been in existence, out of 292 cases treated (in 224 of which the nature of the disease was proved experimentally) there have been only 4 deaths. Two of these occurred at the beginning of 1887, in the first batch of 66 cases, a rate of mortality of 3.03 per cent.; in the remaining 382 cases the death-rate has been only 0.52 per cent. The treatment adopted is somewhat more "intensive" than that of M. Pasteur, the length of the course being now twenty-two days.—*Brit. Med. Journal.*

PERITONITIS IN TYPHOID FEVER.—DR. RENNERT reports three cases of typhoid fever with perforation of the bowel which recovered in the Friedrichshain Hospital in Berlin. In an interesting paper on the subject he states that he finds that peritonitis may occur, even when there is no actual perforation, from the passage of pathogenic organisms through the partially destroyed walls of the ileum. As a rule, the peritonitis set up in this way is of a more circumscribed character than that which is caused by perforation; but, nevertheless, in some cases it is so extensive that it is impossible to avoid mistaking it for that due to perforation. For the purpose of prognosis it is of great importance to make out whether the flatus permeates the whole abdominal cavity, or whether it is confined within a limited area by the matting together of the coils of intestine. Dr. Rennert considers that the well-known sign of disappearance of the liver dulness is a strong

proof in favor of the generalized affection; but if there be no change in the hepatic area, the prognosis is far more favorable. In this latter case it is quite possible for the patient to recover, but in the former the diffuse peritonitis which results invariably leads to a fatal termination.—*Lancet.*

ATROPHY OF THE BONES OF THE SKULL.—PROF. M. J. ROSSBACH (*Deut. Arch. f. Klin. Med.*, 2, p. 161, 1890), describes an interesting and rare case of neurotic atrophy of the bones of the skull. A woman 58 years of age, after profound emotional disturbance, was taken with a severe headache, which was followed by a small depression over the parietal bone. The pain continued, and with it deep grooves developed over the vertex, until now a groove about 1 cm. in depth extends from the upper portion of the occipital bone forward about 10 cm. to the middle of the parietal. In the last two weeks two deep grooves have developed symmetrically upon each side of the frontal bone, one of 10 and the other 9 centimetres in length. The hair was slightly gray and somewhat whiter over the depressed regions. The patient complained of headache, loss of sleep and appetite, otherwise there was no special change.

EFFECT OF THE EXISTENCE OF UTERINE FIBROIDS ON THE OVARIES.—DR. POPOFF, late *Chef de Clinique* under Prof. Lebedeff, of St. Petersburg, has published an account of a series of twenty cases of fibroma of the uterus, where the ovaries were removed and carefully examined. He found that they were invariably more or less diseased, the most general morbid condition being a hyperplasia of the connective tissue, with corresponding enlargement of the organ. The cortical portion was pretty equally affected, sometimes small yellowish spots being seen, sometimes the walls of the vessels being thickened so that their lumen was partially occluded and the nerves were atrophied. In some cases the follicles became dilated, a multilocular cystic form of degeneration resulting; in others they became obliterated altogether.—*Lancet.*

CYSTICERCUS IN THE EYE.—A. VOSSIUS (*Berl. Klin. Wochenschr.*, 1890, No. 1), describes the removal of one of these cysts from the vitreous body. A girl 18 years of age, had never suffered herself from tapeworm, but had been for a long time at the house of an aunt who was afflicted with one of these parasites. Four weeks after her return home she began to lose the sight of the right eye. The loss of vision led to an ophthalmoscopic examination, when the cysticercus was seen in the vitreous attached to the retina near the macula. The vitreous about the entozoon was cloudy. No other cysticerca were to be seen in the retina, the internal organs were normal and the general health good. The operation was done after Graefe's method and was so far successful that vision of $\frac{20}{100}$ was secured. The later ophthalmoscopic appearances were a reddened centre to the macula surrounded by a number of shining points, in number and arrangement closely resembling albuminuric retinitis.

At the close Vossius gives an interesting review of the more important literature of this condition.

AMŒBÆ IN DYSENTERY.—DR. W. OSLER, of Baltimore, contributes a note (*Centralblatt f. Bakteriologie*, vii, 23) confirmatory of the observations by Lösch, Koch and Kartulis on the presence of amœboid organisms in the fæces and intestine of dysentery, Kartulis also finding them in an abscess of the liver associated with that disease. Dr. Osler says that, so far as he knows, the presence of these organisms has only been found in Russia and Egypt, which adds to the interest of his communication. The patient had lived in Panama for five years, when he suffered from chronic dysentery. In May, 1889, he traveled to Europe, spending several months in Vienna, when he had another attack of dysentery. He returned to Baltimore in December and was seen by Drs. Osler and Friedenwald. For more than six weeks he suffered from irregular pyrexia, slight rigors and sweating. On March 22 Dr. Tiffany incised two abscesses in the right lobe of the liver. The bile-stained creamy pus was found by Dr. Osler to contain amœboid bodies, about twelve times the size of white corpuscles, and showing active movements. The protoplasm was composed of an external homogeneous portion and a central granular substance, in which were numerous vesicles of various size, and ill-defined nuclei. The amœbæ remained active an hour after the pus had been evacuated; and in that which escaped afterwards abundance of these organisms were found, in one instance retaining their activity for more than six hours. The fæces, which had partly lost their dysenteric character, were found to contain similar actively moving amœbæ. Dr. Osler says that the structure of these organisms, their movements and general appearance, leave no doubt as to their parasitic nature. He adds that his observations were confirmed by Prof. Welch and Dr. Councilmann.—*Lancet.*

RESECTION OF THE LIVER.—This subject was thoroughly discussed in the April meeting of the German Surgical Congress at Berlin. PONFICK demonstrated that in rabbits three-fourths of the organ might be removed without injury to the health of the animal, and that there was actually a regeneration of the liver tissue that amounted to about 120 per cent. This did not correspond with the experience of Gluck, who had found that animals could not survive the loss of two-thirds of this gland.

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SATURDAY, JULY 5, 1890.

OVARIAN NISUS NOT THE DETERMINING CAUSE OF LABOR.

TYLER SMITH is chiefly responsible for the notion of the "ovarian nisus" at the tenth month as the determining cause of labor. He was of the opinion that ovulation occurred periodically during pregnancy as in the unimpregnated state, and that the reflex irritation, consequent upon the maturation of the ovum corresponding to the tenth menstrual epoch, was sufficient to determine an increased afflux of blood to the uterus, and thus to provoke labor.

At once, M. CAZEAUX made the pertinent inquiry, if labor is entirely dependent upon ovulation why does it usually occur at the tenth lunar month, and not at the seventh, eighth, or eleventh? At a more recent period, it has been demonstrated by dissection that menstruation never occurs during gestation, and that probably ovulation is suppressed. Still Tyler Smith's hypothesis receives prominent place in our text-books, and a widespread conviction of its truth is made manifest by the frequent allusions to ovarian influence in the medical press. Even among operators, the belief is common that both the ovaries cannot be removed during pregnancy, without the interruption of the condition. Only a few months ago, this opinion was freely expressed in the columns of the *New York Medical Journal*.

Within the year two cases of extirpation of both ovaries and tubes during pregnancy have been recorded that yield significant evidence.

The first case,[1] reported by DANIEL T. NELSON, of Chicago, is of particular interest, since the ovaries and tubes were in a relatively normal state. Indeed, the conditions of this operation were nearly identical with those that might have been supplied in a laboratory of experimental physiology. Accordingly the evidence furnished by this case is of decisive value.

Both ovaries and tubes were removed November 20, 1888, under the alleged indication of hystero-epilepsy, and the patient, after an uneventful pregnancy, gave birth to a fine, healthy baby on July 31, 1889. Careful examination of the specimens shows that both ovaries and tubes were completely extirpated. Moreover, the woman has not menstruated since the operation. Of course, there remains the possibility of the presence of a supernumerary ovary or of disseminated ovarian tissue. It is almost certain, however, as Dr. Nelson thinks, that the woman was pregnant about one month, when she was castrated. It is far from our purpose to criticise the alleged indication for operation in this case. But it must be remarked, in passing, that clinical experience teaches that pregnancy usually exerts a beneficial influence on epilepsy and hystero-epilepsy, just as it commonly aggravates chorea. As an abstract question, therefore, the deliberate performance of Tait's operation, on a pregnant woman, for the relief either of epilepsy or hystero-epilepsy, is a totally unjustifiable procedure.

Dr. Nelson has our sympathy in his failure to detect the fact of pregnancy. At so early a period, the mistake is perfectly excusable. He deserves commendation for the courage that enabled him to publish a case that might easily call out unpleasant criticism.

BANTOCK,[2] of London, records the second example. The case was one of double dermoid tumor in a married woman aged 30, who had her first child in July, 1889. She last menstruated on September 10th, 1889, and she came into the Samaritan Hospital in the beginning of December, with a large abdominal tumor on the right side. About the middle of December abdominal section was performed, and both ovaries, greatly disorganized by the presence of dermoids, together with the tubes, were removed, with full knowledge that the patient was pregnant. She did not abort, and was doing well with every prospect of going to term when last heard from.

[1] Medical News, May 3, 1890, pp. 446, 447.

[2] The British Gynæcological Journal, part xxi, May 1890, p. 4.

Bantock has promised a further communication upon the case with the result of the anatomical study of the ovaries, that will be awaited with interest.

In this case the ovaries were so extensively diseased that in the interpretation of the effect of the operation on pregnancy some allowance must be made for this pathological element in the experiment.

The evidence furnished by these two cases, in the absence of all other proof, is sufficient to establish finally the proposition that the "menstrual nisus" is not the primary, essential and determining cause of labor.

PHYSICIANS FOR CORONERS.

A few weeks ago we had occasion to refer to non-medical coroners, and to the efforts made in Colorado to overcome some of the more serious defects in the administration of that office. In Illinois all the evils of the political coroner are most pronounced, and, doubtless, any effort that may be made to correct them will meet with determined opposition from the office-holding class. The laws governing coroners in Illinois are but a prototype of those in a majority of the States; only a few having so far made any effort to reform this relic of the middle ages. The Chicago Medico-Legal Society nearly two years ago appointed a committee that submitted an able report summarizing the abuses of the present system and urging the adoption of the Massachusetts law. This law in effect substitutes medical examiners, appointed by the Governor, having substantially the same powers as coroners, in that they may summon a jury to aid them in cases of suspected criminality. It, however, dispenses with the cumbersome and inefficient jury of laymen in arriving at the cause of death.

A curious reform has been adopted by the present coroner of Cook county, which is in effect a recognition of the correctness of the principle involved in the appointment of medical examiners. He has recently appointed a physician as one of his deputies; and in cases of death from unknown causes he is sent out, and makes an examination; if this reveals that death took place from natural causes, an ordinary physician's death certificate is issued. If crime is suspected he assumes the duties of a deputy coroner and empanels a jury. One of the curious anomalies of this procedure is that he, as a witness, must administer the oath to himself, and testify as an expert regarding observations made at the *post-mortem* examination—a sort of coronial Pooh Bah. When the case reaches the courts he again becomes a plain physician. We are informed by the coroner, through the public press, that this system works well, and results in a considerable saving to the taxpayers in decreasing the number of inquests, as well as facilitating the work in the coroner's office. With such an example from a layman, should not physicians everywhere, and particularly our public health officers, take up and advocate reform in this work until every medical position is filled by a medical man!

THE NEW VOLUME.

So far as we know, the conclusion which was reached seven years ago, to publish the transactions of the Association in the form of a weekly journal, has met with universal favor. The difficulties to be encountered were such as to require the most cautious procedure, and more or less of criticism was to be anticipated, especially from those who were least familiar with the responsibilities to be assumed. Without financial basis, and relying wholly upon the cordial coöperation of the members of the Association, its only basis of support was their fidelity and forbearance. This support THE JOURNAL has had, and by reason of this it comes to the opening of its fifteenth volume with better assurances for permanent success, and with better promise of useful service to the profession than ever before.

The relations of THE JOURNAL to the medical profession are unique. It is neither the organ of publishing houses nor the servant of manufacturers. It is subject to no individual control, and it serves no man for pecuniary profit. It belongs absolutely and exclusively to the American Medical Association, and as such every member of the Association sustains to it a proprietary relation, and holding such relation, each is responsible for its success or failure. The power to control its management vests in the membership, and the wisdom with which that management shall be governed will determine as to its future prosperity. If it is to become the leading medical journal of this country, it will become so

through the instrumentality of the membership. If it is to be replete with the best of medical literature, it will be so largely by reason of their contributions. If its circulation shall be widely extended, it will be in answer to their exertions. If the Association shall be able to build itself strongly and wisely until it shall represent the united power and influence of the profession on this vast continent, as it should, THE JOURNAL, as its accredited organ, will have absolute freedom to voice the sentiments of the profession upon all medical subjects. If it remain free from financial dictation and is subject to neither partizan nor selfish purposes, it has before it a future full of promise and possibilities which can hardly be estimated. It may become a most efficient agent in the promotion of harmony among all honorable practitioners. It may secure to its readers the best of medical literature from home and foreign sources. It should be able to furnish a complete and reliable *résumé* of all genuine medical progress. To the fulfilment of these purposes the management pledges its best endeavor.

With the commencement of a new volume it is a fitting time to secure new subscriptions, and in this work every member of the Association, if they will, can lend a helping hand.

EDITORIAL NOTES.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will meet at Louisville, Ky., Oct. 8, 9, 10, 1890. Titles of papers should be in the hands of the Secretary, Dr. E. S. McKee, 57 W. 7th St., Cincinnati, as soon as possible. The American Rhinological Association will meet at the same city the same week, viz.: Oct. 6, 7, 8, 1890. Titles of papers should be sent to the Secretary, Dr. R. S. Knode, National Bank Bldg., Omaha, Nebraska. These two Associations meeting together will attract a large number of the best men of the medical profession, and the well-known Kentucky hospitality will make all welcome and no one will regret going.

HYSTERICAL PERVERSION OF SENSIBILITY.—*The Recorder* for May, has an account of an unusual case of hysterical sensory perversion, quoted from a recent clinic of Professor Leyden, of the Berlin Charité Hospital. The professor exhibited to his class the case of a young woman belonging to that class of hysterical persons who manifest an abnormal desire to have surgical operations, even of the most painful character, performed on them without any anæsthetic being used. These persons, according to Dr. Leyden, not only do not experience pain, or they will so acknowledge it, but, on the contrary, that which in others produces all the accompaniments of pain, produces in them pleasurable sensation. The young lady, shown to the class, was one who during a hysterical attack fell and injured her face, severing the facial artery and fracturing the lower jaw. The wound was sufficiently serious to require the deligation of both the facial and carotid arteries, besides the removal of a portion of the broken jaw. The patient readily submitted to the operations, but insisted in having them done without any anæsthetic. And she afterwards assured the surgeon that she experienced no pain, but rather great pleasure during the performance of the operation.

MEDICO-LEGAL SOCIETY OF CHICAGO.—The annual meeting of the Medico-Legal Society of Chicago, was held June 7, 1890, when the folfowing officers were elected for the ensuing year: President, Dr. E. J. Doering; Vice-Presidents, Dr. B. Bettman and Judge O. H. Horton; Treasurer, Dr. L. L. McArthur; Secretary, Dr. Edward B. Weston. The following gentlemen were elected active members: Drs. Archibald Church, Sanger Brown, G. Frank Lydston and J. E. Stubbs. At the next meeting of the society Dr. M. H. Lackerstein, in conjunction with Drs. Archibald Church and J. C. Hoag, will present the scientific aspects of Medical Hypnotism, with reports of cases of hypnotic treatment.

THE JOHNS HOPKINS UNIVERSITY.—We are advised that by a recent transaction in Baltimore, in railroad securities, the Johns Hopkins University will come into possession of an income-paying investment, from which $58,000 will be derived annually. The Trustees have taken the steps necessary to this end in order to avoid the recurrence of fluctuating revenues by which they have been hampered during recent years.

DR. T. G. RICHARDSON, formerly of New Orleans, and President of the Association in 1878, has resigned his connection with the Medical Department of Tulane University, and has removed to Washington, D. C.

THE ILLINOIS ARMY AND NAVY ASSOCIATION. Under the above name a new medical association was organized at Springfield, Ill., on June 26, with the following officers: President, Dr. H. A. Johnson, of Chicago; Vice-Presidents, Dr. A. T. Barnes, of Bloomington; Dr. H. W. Kendall, of Quincy; Dr. Ira Brown, of Milford; Dr. A. B. Agnew, of Samoth, and Dr. E. Gulick, of Alton; Treasurer, Dr. W. J. Chenoweth, of Deselm; Secretary, Dr. J. H. Rauch, of Chicago. About forty gentlemen were enrolled as members. The object is social and medical improvement.

REGULATION OF MEDICAL PRACTICE IN ILLINOIS.—The report of the State Board of Health of Illinois for 1889, illustrates the efficacy of its laws for the regulation of medical practice. When the law went into effect there were in the State engaged in practice 7,400 persons. Of these 3,600 were graduates from some medical college, while 3,800 were non-graduates. In other words, the graduates constituted only 48 per cent. of all engaged in practice. On January 1, 1890, the percentage of non-graduates to the whole number was only nine. From 3,800 the number has been reduced to 575. The total number of physicians in the State is less now than it was twelve years ago.

THE WISCONSIN STATE MEDICAL ASSOCIATION closed its annual meeting in Milwaukee on June 6. The election of officers resulted in the choice of the following: President, Dr. Ladd, of Milwaukee; First Vice-President, Dr. F. E. Wallbridge, of Milwaukee; Second Vice-President, Dr. B. F. Phillips, Menomonee, Mich.; Secretary, Dr. J. R. McDill, of Milwaukee; Assistant Secretary, Dr. H. B. Ogden, of Milwaukee; Treasurer, Dr. Sydney S. Hall of Ripon. The next annual meeting will be held in Madison during the first week in May, 1891.

THE fifty-eighth annual meeting of the British Medical Association will be held in Birmingham, July 29, 30, 31 and August 1.

YELLOW FEVER QUARANTINE AT NEW ORLEANS.—The steamship "Adrian" recently arrived at the Lower Quarantine Station of that city laden with fruit. It is reported that on the passage from Boca del Toro the steward died of yellow fever and was buried at sea. Another case of fever of suspicious character is reported on the vessel, and the most careful surveillance will be exercised to prevent the invasion of yellow fever at that port.

THE MASSACHUSETTS MEDICAL SOCIETY.—This veteran organization held its 109th anniversary on June 10 and 11. At the annual dinner Dr. Joseph Stedman presided. The toasts and the responses were in keeping with the occasion.

A READING ROOM AT BERLIN.—A reading room is to be established in connection with the Tenth International Congress for the benefit of its members. The current medical literature will thus be at command, and medical men from every section of the world can there review their home journals.

A DOUBLE MONSTER.—There is now on exhibition a double monster, known as the Tocci Brothers. The children are 13 years of age, and were born of an Italian woman living in humble circumstances. The body as far as the shoulders is single, but is double above. The stomach is common to the two children, and if one eats heartily the other has no desire for food, yet it is said that the two are very unlike in their appetites and tastes, one being fond of sweets, while the other cares only for substantials. The genital organs are male, but the face of one of the children is very feminine in its appearance.

NEW HOSPITAL IN BIRMINGHAM, ALA.—The new county hospital in the suburbs of Birmingham is nearing completion. It is a red brick building, 265x68 feet, one story high. There are four wards, which will accommodate about one hundred patients. The ground on which the hospital is built was a gift from Dr. J. R. Smith.

THE FIFTH DISTRICT BRANCH of the New York State Medical Association will hold its eighth special meeting in Kingston, Ulster county, N. Y., on Tuesday, July 22. The meeting promises to be one of special interest, and there will doubtless be a full attendance.

AN EDITORIAL CHANGE.—The editor of the *American Journal of the Medical Sciences*, Dr. I. Minis Hays, will sever his connection with that journal after the issue of the July number. The Drs. Hays, father and son, have been identified with that publication for sixty years. Dr. Edward P. Davis will succeed to the editorial chair.

TOPICS OF THE WEEK.

"EMBALMING," SO-CALLED.

The objections to the crude operation which undertakers practice under the name "embalming" are genuine, and not fanciful or imaginary. Medical examiners in Massachusetts and medico-legal pathologists elsewhere are well acquainted with the mischief wrought by this custom, devised by undertakers to promote their own profit and convenience. Many judicial investigations of death by poison have been effectually blocked and rendered fruitless by this precipitate emptying into the cavities of the dead body, of an unlimited quantity of strong solutions of the very agents most commonly employed by criminals to destroy their victims. We cordially agree with Dr. Durell in his protest against this objectionable practice.

See what may happen at any time. A man with felonious purpose mixes with his wife's food small and repeated doses of an irritant poison (arsenic or corrosive sublimate). Her death ensues. The murderer summons an undertaker at once and makes terms with him to "embalm" the body; it is the proper and usual thing to do. The undertaker soon returns with his box and gets to work before the body has had even a chance to cool; he floods the thorax and abdomen with poison which, by diffusion, enters every organ and tissue of the body, recent investigations having shown that not even the brain or spinal cord escapes. So, from the moment the injections are made, the undertaker in such a case is the unheeding ally of the criminal, and the latter has placed himself in the strongest position to meet suspicion or accusation, because anatomical appearances and chemical reactions, above the line of "reasonable doubt," are not available as proof against him.

Surely it is reasonable and proper to place some legal control upon this unnecessary and objectionable practice. When the cremation of dead bodies was legalized in this State by the incorporation of an association founded for the purpose of conducting that method of disposal, it was expressly provided in the statute that in every case of cremation, a medical examiner's investigation and certificate should be the obligatory preliminary, the obvious reason being the need of preventing the destruction of the dead bodies of the victims of criminal violence. The same requirement should be in force with reference to embalming, and for similar reasons. If, however, it should be apparent that public sentiment would not sustain such a stringent regulation, it should at least be required, as Dr. Durell suggests, that a medical certificate of the cause of death should be obtained from the physician in attendance, and should be approved by the local board of health, before any embalming operation on the dead body is begun. It should not be forgotten, in this connection, that the uncontrolled use of poisons for the alleged purpose of preserving dead bodies for the two or three days before their burial, has no advantage over ice treatment except that it yields a larger profit to those who practice it.

We are advised that the Medico-Legal Society has this matter before it. We trust that the Society's purpose to seek and obtain legislative action will not meet too much opposition from "American liberty," and will be rewarded with success.—Editorial, *Boston Med. and Surg. Journal.*

AN INTERNATIONAL LANGUAGE FOR SCIENCE.

This question has been frequently discussed, and it will probably be ventilated again at the Congress. French is the language of the diplomacy, and the French therefore urge their claim to have French chosen as the medium of communication between the learned men of different countries. We can hardly expect the Germans to accept this proposition. English has a claim for some consideration; but France and other foreign countries will put their veto upon our claim. Volapük has now a strong following, and this strange amalgamation of tongues offers itself as the solution of a difficulty. Considering the difficulties of the new language, we can hardly favor its pretentions. If we really require a special tongue for science, we should fall back upon the Latin. We have here a language with a history and a literature, and if it could be established that Latin was to be in the future the means of communication between learned men, then Latin would be taught in the schools of the world in a much more rational way than it is at present, and still more, those who intend to enter the medical profession would have to acquire a much wider acquaintance with its literature than is expressed by the first two books of Virgil or Cæsar, which represents at matriculation the acquaintance of the candidate with the *literæ humaniores.—Provincial Medical Journal.*

MEDICAL PHILANTHROPHY.

Florence, celebrated for her organization of the "Misericordia"—a Society for the gratuitous assistance of families visited by sickness or death, the working of which so interested Her Majesty Queen Victoria during her sojourn at the Villa Palmieri—has at length supplemented that time honored institution by another called "La Guardia Permanente Medico-Chirurgica." Every Florentine citizen, male or female, whose circumstances do not admit of paid medical consultations, may now, at any hour of the day or night, by calling at or sending to the headquarters of the "Guardia," in the Via Sole, secure immediate assistance for any injury or disease from which he or she may be suffering. The one condition on which the required attendance is given is this —that the applicant shall be too indigent to be able to pay a regular practioner. So checked, the services of the "Guardia" are in no danger of compromising the legitimate gains of the profession. On the contrary, the time of the busy, too often struggling, practitioner, is spared the calls which his humanity makes him respond to, but which in justice should be addressed to charities specially maintained for the sick poor. The assisting hospitals and the medical police service do not, it is found in Florence, suffice for cases of urgency, still less during such epidemics as that of influenza lately prevalent. Too often the surgeon's aid is wanted, when it is not available, from pressure of other claimants on him. Valuable

time is lost, and the patient dies, or drifts into a state in which intervention, however skilled, is fruitless. The *personnel* of the "Guardia" is composed, on the one hand, of consultants recruited from the flower of the faculty and of "medici attivi," also ably represented, who relieve each other for "assistenza immediata," and on the other of an administrative staff which includes the laity as well as the profession. The leading pharmacists of the city have also generously come forward to supply medicines to the "Guardia" at minimized rates. A "polyclinic" for consultation is another adjunct to the institution, and will present from week to week in regular series a selection of forms of diseases for observation and instruction. The "Guardia Permanente Medico-Chirurgica" is in short a charity, instituted for the ailing poor, for relieving the pressure on already existing hospitals and medical police service, and also for protecting the general practitioner from unremunerative calls. It has been introduced into Florence from Milan, whose rapidly increasing population suggested it, and whose wants it has met opportunely and well. Like its Milanese prototype, it has the support, not only of philanthropic citizens, but of the municipal authorities and the provincial sanitary board—bodies which in other cities besides Florence and Milan would do well to follow an example so praiseworthy.—*Lancet.*

STANLEY'S TRIBUTE TO SURGEON T. H. PARKE.

In a recent address by Mr. Stanley he said of Dr. Parke: "Surgeon T. H. Parke, A.M.D., was the latest of our volunteer officers who applied for membership in the expedition. He wrote with his own hand the terms of the agreement, the most comprehensive being 'loyal and devoted service' gratuitously. For some months he pursues his duties without attracting much notice from me; he is so quiet and unobtrusive. Finally, the increasing distresses to which we are subject increases the sick-list alarmingly. I am obliged to attend personally to the matter, which brings me more into contact with the doctor, and gives me better opportunities of observing his manner of work. Splinters pierce the feet through and through, ulcers break out like an epidemic, nostalgia creates a chronic sinking of the vital powers, hunger weakens them, dysentery saps their strength, fever enfeebles them, and various accidents occur, and each has its victims. Natives wound with arrows, knives, and spears, and before many months I find that nearly all the men pass under the doctor's hands. His patients vary from twenty to fifty in number daily; for once anæmia has firm hold of the constitutions, and the circumstances which caused the sickness remaining unaltered, except from bad to worse, the doctor's task never lessens. For months he has devoted his skill, his time, patiently and uncomplainingly, and always with a charming interest in his cases, until I have at last one hundred and twenty-four, a full one-third of the expedition, unfit for further travel. I call the doctor, and explain to him, and say, "You have done well, I admit; but I wish more yet, if possible. Take these one hundred and twenty-four, and cure them. How you will do it, I do not know; but come this once. Every hour of the day give to them, see that their terrible wounds are dressed, that they have rations regularly, and that their food is cooked, etc. Though they were a terrible sight when I left them in his charge, in one month over eighty are in prime condition and fit for active service, and a few weeks later there are only five incurably sick." He adds that Dr. Parke twice saved Stanley's life. Dr. Parke has been awarded the Honorary Fellowship of the Royal College of Surgeons of Ireland, which has thus shown a prompt appreciation of his work. The Khedive has conferred on him the Third Class Medjidieh. The Royal Geographical Society, at the Royal Albert Hall on Monday, May 5, presented him, through the Prince of Wales, in the presence of a brilliant audience, with a medal which had been struck in honor of the services rendered to the cause of science and humanity; and the British Medical Association will present him with their gold medal for distinguished merit.—*Medical Record.*

SANITARY CONDITION OF TEHERAN.

In his memorandum on the last cholera epidemic in Mesopotamia and Persia, as quoted in the *British Medical Journal*, Dr. N. Daniloff, physician to the Russian mission at Teheran, says that the Persian Capital will suffer greatly from cholera in case of the disease breaking out in its population, which numbers about 100,000. The centre of the town is occupied by a bazaar with a number of eating houses and coffee shops. Every species of offal, excrement, etc., is deposited there. Carcasses of horses, dogs, and other animals, are simply thrown out on the streets. The chief danger, however, lies in the water-supply. The town receives its water from mills situated a few miles away. "The place abounds," Dr. Daniloff says, in "reservoirs and wells which are nothing but holes leading straight down into the aqueducts, and lying on a level with the ground, without bein protected by any fences or frameworks. Here the inhabitants perform their ritual ablutions, wash their linen, and use the same water for drinking purposes."

About the end of 1889, when the epidemic was raging in Persia, the Emin-Sultan, "the first personage after His Majesty the Shah, in the country, invited local European doctors to advise what could be done to protect the capital from the epidemic. They unanimously declared that, before everything, the sanitary condition of the town, and especially the water-supply, should be radically improved, and they indicated how this might be done. But as the reforms suggested would have involved considerable expense, the Persian Government preferred to leave things as they were."—*Boston Medical and Surgical Journal.*

ROOSEVELT HOSPITAL OPERATING THEATRE.

The legal difficulty concerning the will of Mr. Syms, providing for the erection of an operating theatre upon the grounds of the Roosevelt Hospital, has been compromised so that the work upon said building will soon be resumed. A gynecological operating pavilion is also in process of erection. The money therefor has been subscribed by a friend of Roosevelt Hospital.

PRACTICAL NOTES.

ON THE ACTION OF SULPHONAL.

In the *Therapeutische Monatshefte* for March, Dr. Franz, of Breslau, says: Pertinently to the researches of Dr. Knoblauch concerning the effect of sulphonal in diseases of the mind (*Therap. Monatsh.*, 1889, page 495), I may briefly relate here my own experiments upon the operation of sulphonal in surgical diseases. I have administered sulphonal Bayer to eighty-two patients, in about 260 doses, and from these experiments, which were made to learn what injurious collateral effects sulphonal might have, have reached very favorable conclusions. In the cases in which only an agrypnia nervosa had to be dealt with, comprising twenty-six patients and eighty-six doses, sulphonal failed me only four times, and those all with the same patient. This patient was very anæmic, had pulmonary phthisis, and had been operated upon several times for tubercular abscess. The patient declared, besides, that he could not sleep without morphine. In all the other cases the patients slept very well after sulphonal; and the sleep was, according to their representations, beneficial and refreshing. In no case had the patients any trouble from sulphonal; they did not complain of dizziness, or staggering, or headache, nor did any ataxic symptoms appear. Only the single patient (a morphine-taker), already mentioned, once had, after a dose of 3 grams of sulphonal, somewhat marked delirium; otherwise he had no trouble. In one case we succeeded in weaning a moderate morphinomaniac from his habit by sulphonal. The maximum dose was in most cases one gram. Somewhat larger doses had to be taken by patients who were suffering pain from wounds or other causes; with them a dose of two grams was sufficient to produce in a short time healthful sleep. Only in five cases did sulphonal fail to remove violent pains, and then, indeed, in doses of only a gram. In one case the pains of a violent supra-orbital neuralgia (following a phlegmon of the left half of the face) ceased after the administration of a gram of sulphonal; with another patient toothache disappeared after giving sulphonal. In all these cases no headache, dizziness, ataxia, or other collateral symptom appeared.

Sulphonal also agreed well with all patients when given immediately after narcosis with chloroform. The pains, headaches, and vomitings that accompany the narcosis were not increased by it. No inconveniences followed the sulphonal; the numbness and the heaviness of the head after chloroform were in no case increased, but in many cases ceased. Sleep during the night following the operation was relatively not so good as in the other cases; but only three of the patients were unable to sleep; in the other cases the sleep was light and sometimes broken, but was otherwise generally good. Several patients averred that they slept better after sulphonal than after morphine, which was given them alternately with it.

Sulphonal had a marked effect with children, to whom it was given in seventeen cases in doses of from 5 to 8 centigrams. Sound sleep soon came on, without any unfavorable symptoms being induced.

When did the effect of sulphonal appear? I must first remark that no patient who took sulphonal between 2 and 4 o'clock in the afternoon slept during the day, or till evening. In the other cases sulphonal was given between 6 and 8 o'clock in the evening, and sleep came on in the case of patients with agrypnia nervosa in the course of an hour, while with those who had violent pains or were still under the influence of chloroform, it generally held off somewhat longer. In a few cases a sound and healthy sleep did not set in till toward morning. I should mention that the sulphonal in all the experiments was given in wafers, so that the difficult solubility of the sulphonal may be responsible for the delay in the patients' going to sleep.—*N. Y. Med. Journ.*

TREATMENT OF SOFT CHANCRES (CHANCROIDS).

The striking results obtained by Winckel with liquor ferri sesquichloridum in puerperal ulcers induced Letzel (*Allg. Med. Cent. Zeitung*, 1890,) to try it on soft chancres. After the ulcer has been painted with the solution for four days, a bright granulating surface results, which is then treated with calomel, and usually heals in five days. The pain caused by the application very seldom calls for cocaine previously.—*Virg. Med. Mon.*

WHEN IS A CHILD VIABLE.

It is usually stated that children born before the seventh lunar month are incapable of living, and Voit mentions 1,500 grms., or 47 oz., as being the minimum weight of a viable child. Exceptions, however, occasionally occur. One such has recently been reported by Dr. Holowko, assistant physician in the Dorpat Obstetric Clinic. A female child was born in the twenty-seventh week, and weighed only 1,300 grms., or 31 oz. Though it had to be subjected to Schultze's swinging movements in order to get it to breathe, it was ultimately brought into very good condition, and after a time attained the weight it would have done had it remained in utero its full time. It was kept in a kind of *couveuse*, and fed by a wet nurse, and with milk diluted with four parts of water. Dr. Holowko thinks that the formation of the chest and general muscular development are of more importance for prognosis in such cases than the body weight.—*Lancet.*

SOCIETY PROCEEDINGS.

American Medical Editors' Association.

Annual Meeting, held in Nashville, Tenn., May 19, 1890.

I. N. LOVE, M.D., OF ST. LOUIS, PRESIDENT.

PRESIDENT'S ADDRESS.

Fellow Editors:—It is needless for me to attempt to express my appreciation of your having chosen me to preside over your honorable body.

An organization which includes in its membership the editorial representatives of the leading medical journals of America is one over which any man might feel proud to preside, even though conscious of the fact that the kindly regard of cordial friends had more to do with his selection than special fitness, or marked editorial ability.

I shall not weary you with a lengthy address, as there are numerous papers to follow which will prove more interesting, but have decided to throw out, not in an advisory way, but merely as suggestions, a few points which I trust will not prove completely stale and unprofitable.

It would be more interesting than gainful for me to present to you a history of the progress of medical journalism from 1686, the year which gave birth to the first medical journal, down to the present day. I am safe in saying that medical journalism has kept pace with the advancement in other directions.

The printed sheets, published at stated intervals, devoted chiefly to intelligence on current events, under the name of newspapers, appearing first in the early part of the seventeenth century, were mostly in the form of weekly news letters, which only the aristocracy could afford; but from this small beginning has been evolved the mammoth metropolitan daily journal, appearing once or twice, or half a dozen times a day, selling for a song, purchased by the millions, and he who runs may read what happens from one end of the world to the other.

Has the medical journal followed the pace set by the secular press? I will answer "Yes" and "No." However, taken in their entirety and completeness, I believe the medical journals of the world may be credited with having kept in line with the progress of the journalistic procession.

The current advances of the profession, the achievement of the medical world's best workers, have been faithfully recorded and promptly presented. The negative side of the question confronts us when we consider whether the medical journalist has, like his brother of the secular press, kept his fingers upon the pulse of those he serves.

Has he properly considered their tastes, their capacities? has he sufficiently mingled with the masses who he has been desirous of feeding? In general has he not been inclined, like the Pythian priest in the temple of Apollo, to sit upon his tripod—with his tripod upon stilts—deeming himself and his views even more thoroughly oracular than the Delphic one of old?

In secular affairs the procession moves so rapidly that the journalistic music must be made appropriately fast, just as fast as possible within the limits of harmonical sound, and even then a discordant note is occasionally heard.

The actions of men, the affairs of commerce, the ups and downs of the world at large must be known by the reading masses before entering upon the various duties of the day. But science, hygiene, sanitation and the dreary routine of the doctor's life, the needs of humanity, the interests involved, demand careful thought and are in the aggregate against the too frequent appearance of the medical journal. The daily medical journal, in spite of the fact that the medical world is moving more rapidly than ever before in the history of the world, would be, in the nature of things, an absurdity.

Thoughts, suggestions and discoveries are coming in rapid array, but in view of the fact that they pertain to the most serious of all earthly affairs, they must be weighed in the balance and found worthy, and not sky-rocketed upon the medical horizon like the sensational gossip of the daily press which gives zest to the morning meal.

At this point the query presents itself: How often should the medical journal make its appearance? I answer—just as often as its equipment may enable it to present well digested facts in good form for ready assimilation by its readers—bearing in mind that the doctor's life is a monotonous round of drudgery in the majority of cases nine months out of the year, his "day's work" being never done.

On the "go" from sixteen to eighteen of the twenty-four hours, the doctor, if he receives a journal too often, will see and read about one in four copies—the other three will remain in their wrappers.

He who sits in his sanctum delving in science, looking through the small end of a microscope (seeing things which to the average eye are an unopened book), who daily walks in the valley and the shadow as well as on the mountain top of science, may well feel that the ideal medical journal should deal in nothing but cold facts; should be severely and serenely scientific; that if it is anything else than this, anything else than learned and logical, strong and heroic, heavy with the accumulation of thoughts thrown out by theoretical authorities, it is undignified and unscientific.

They who are able to grasp such a journal are the upper "four hundred" of the profession, who have not a thought beyond that which is

perfect, and are learnedly angelic, but when it comes to presenting this Saturnine production to the masses of the profession, it will prove more than likely a cold dish.

Not that they are not qualified to appreciate it, but that they are too busy. They are practical workers. Many of them, as I said before, are either in the saddle or the sulky, in the buggy or the brougham, behind one or more of man's most faithful slaves, sixteen or eighteen of the twenty-four hours, engaged in an effort to relieve suffering humanity. Four nights out of five they are unable to sleep in their own homes, and hardly have sufficient time to become acquainted with the individual members of their own families.

They are all anxious to keep up with the procession of the sciences; ready to pick up crumbs of knowledge and information wherever available, but certainly in no humor to grasp one of the ideally perfect journals and wade through long, learned and labored theses, turned out after months of work by the scientifically pluperfect.

These practical workers, these slaves to a horde of suffering tyrants want meat and drink, nutrition and stimulation which are available, and which they can pick up by the wayside by fits and starts.

In my judgment the best journal is one that can present a fair epitome of the results achieved by the bacteriological, chemical, anatomical, physiological, pathological and clinical workers; in fact, I think that the best journal is the one which furnishes matter within the scope of all, on the principle that he does the most good who does the greatest good to the greatest number.

Of course there can be no doubt that the special journal, heavy with science, comes within the reach of only a few, and those who conduct it should not feel that it is any better because more exclusive than the more varied, practical, democratic and generally useful journal which caters to a larger number.

I feel that every worker in the medical field should be induced to contribute his mite to the fund of knowledge. There are those who have been long out of the scholastic groove, working as slaves in the ranks of experience. The habit of jotting down their thoughts and ideas has long been broken. If called upon to contribute an article for a journal the product, viewed from the standpoint of the schools, might fall far short of perfection; but that it would be of value cannot be denied. We often hear the announcement made by medical men that they will never write except when they have something absolutely original. We must remember that it is only by knowing the views and work of other men that we accomplish the crystallization of our own views. It is well to bear in mind too that the good and the true will bear repetition and are seldom strikingly new.

What we want is the recorded observations of workers in the medical field. Men who hibernate in their closets and indulge in day dreams may evolve, by means of the proper equipment for scientific investigations, that which is of value, but the practical worker can apply these deductions and test them in the severe school of experience, and we need just such evidence as these practical workers can give.

I claim too that a medical journal should be constantly on the lookout to present all that is of interest to the medical guild, ever alert to advance its material good, striving in the direction of the complete organization of its members.

OFFICIAL ORGANS.

Under the existing conditions of medical journalism in America, I am strong in the conviction that there is no justification for any medical body possessing itself of an official organ, save and except the American Medical Association.

In the nature of things it is proper that the National representative body of the profession should be officially represented by a journal. And it should be the duty of that journal to work in harmony with the various medical journals of America. It is fortunate for the American Medical Association that its official organ has been in such good hands. Regarding journals which serve in the capacity of organs to State, district and county societies, medical colleges, instrument houses, publication houses, proprietary medicines, etc., I am of the opinion, not that they lag superfluous on the stage, but that their influence and usefulness can be but limited.

However, I am firm in the belief that these and all other medical journals, so long as they spread knowledge, are productive of good. We often hear the statement that there are too many medical journals; but it is no more true than is the statement that there are too many doctors, or workers in other fields. As long as good work is done, and the governing thought in the worker is the accomplishment of the general good, there cannot be too many workers, either in journalism or any other field. The inexorable law of the survival of the fittest will obtain and solve the problem here as elsewhere.

I have thought for several years that this National Association of Medical Editors, meeting as it does the evening preceding the first day's session of the American Medical Association, should extend its work to the degree of having a session of one or two hours—say from 8 to 10 A.M.—each day that the American Medical Association is convened. By having the several sessions the members would be brought together oftener and more intimately, and many things of interest to our craft could be carefully considered, and conclusions reached which would have a far-reaching effect upon the journals and the profession.

I would not presume to advise this body, and yet I cannot refrain from announcing as my belief that every medical editor in America who is loyal to the best interests of the profession and himself will not only attend the annual meeting of the American Medical Editors' Association, but will never fail to be present at the meetings of the American Medical Association, and urge the profession of the entire Union to join and attend this grand representative body.

Let us never loose sight of the fact that the Editor who mingles most with Doctors is the best qualified to know their needs.

Let us not as Medical Journalists throw overboard from our vessels the ballast of sound, judicious "Conservatism," a discrete to present solid scientific sustenance to our subscribers, but may we not take the cue from the daily press to the extent of giving a proper variety to our patrons? Let us try to lead our professional brethren in the correct directions, but may we not occasionally, in fact frequently, follow their leadership?

Let us bear in mind the many carking cares constantly crowding into the Doctor's life, and while we strive to present entire loaves of solid scientific food let us ever and anon throw in all the crumbs of comfort we can.

Let us remember that a little wit, gayety and even nonsense now and then are relished by the best of men.

Charles Dudley Warner recently remarked "It is better to be dead than dull." Let us try to be neither dead nor dull, but let us be saturated with a desire to improve, advance and inspire our readers with a determination to do the best work in their power for humanity and the profession. Let us strive to make the uppermost thoughts of our editorial lives those connected with science, humanity, charity, business thrift, brotherly kindness and cheerfulness.

Allegheny County Medical Society.

Special Meeting, February 19, 1890.

W. S. FOSTER, M.D., PRESIDENT, IN THE CHAIR.

TRACHEOTOMY FOR FOREIGN BODY.

DR. MURDOCH: A little boy was brought to the West Pennsylvania Hospital recently, who five days before was lying on his back with a grain of corn in his mouth; he took a violent paroxysm of laughter, suddenly gave a very long inspiration and immediately was seized with a paroxysm of coughing and strangling. The parents, who knew that the boy had the corn in his mouth, surmised it had gone "the wrong way" and into his windpipe, and commenced, as is customary with people in such cases, to slap him on his back, and, not succeeding in relieving his paroxysms of coughing, they sought assistance from their family physician, who came and gave the child an emetic; the child vomited profusely, but was not relieved. He continued to cough, had violent paroxysms that night and all the following day, and then still further relief was sought, and every effort was made to dislodge this grain of corn from the windpipe. The child was inverted, shaken and slapped violently on the back; still other emetics were given but no relief came, and the father brought the little fellow to the hospital. He then presented every appearance of suffering from œdema of the lungs. The skin of the face was livid. He was evidently in great distress, breathing with considerable difficulty, and every few moments he would be taken with violent paroxysms of coughing. On examination of his chest I was unable to detect any abnormality in either lung by auscultation or percussion. But from the history of the case, and from the other symptoms, I thought we were warranted in opening the windpipe. Before putting the child under an anæsthetic I inverted him and shook him, but the corn was not dislodged from its position. He was then anæsthetized with chloroform, and that procedure was repeated without good effect. An incision was then made into the trachea; the second, third and fourth rings of the trachea were divided, and when the forceps were introduced into the trachea, the child gave a violent inspiration and then a violent expiration, and at once the corn came up from below and appeared at the opening. I made an effort to grasp it with the forceps, but failed, and it went back into the trachea. Then by introducing a pair of narrow-bladed forceps to try to get the corn, the irritation of the forceps seemed to excite another paroxysm of coughing; the boy made another inspiration and after it an expiration, and the corn was thrown away across the room, lodging some eight or ten feet from the boy. It was picked up and found to be a very large grain. It must have been three-fourths of an inch in length by half an inch wide and a fourth of an inch thick, and it was in a swollen condition, and evidently had it remained much longer in the boy, it would have commenced to germinate. The case demonstrates the value of the operation of tracheotomy. I believe that if this body had been larger and more spherical, it would have probably lodged in the larynx. That is the usual way children choke. If it is a spherical body, or a body like a piece of meat, it will be impacted in the larynx, and unless the child is relieved at once he necessarily perishes. When the body is angular, as a grain of corn, if lodged in the larynx, sufficient air can pass to sustain life. In all cases we are not so successful as I was in this one. Frequently, when the windpipe is opened, the surgeon is unable to get

the foreign body. It may be impacted in one of the bronchial tubes, and even if it does not escape at the time of the operation, the chances of its escaping from an opening in the trachea are much greater than they would be for it to escape through the larynx.

DEAFNESS WITHOUT APPARENT LESION.

DR. ALLYN: A man in a mill was assisting a man much larger than himself at a roll; a link of a chain swung around and struck the larger man, breaking his nose and crushing his face, but simply pushing the smaller man to one side. This man showed no symptoms of prostration and presented all the appearances of being uninjured with the one exception that, as he was taken up, he was absolutely deaf to all noises. Going over all the points, I failed to elicit one point further than the fact that he could not hear. He had no aphasia, there was no paralysis of any of the muscles of the body, of the eyes or face. There was no paralysis of taste. The ear-drums were intact, the membrane being perfectly translucent and of the proper color, and no hæmorrhage known in the case at any time. It possesses the simple fact of there being absolute deafness in both ears, caused by merely being knocked over and falling on the side of the head, I do not know what progress the case will make; it is of recent origin.

TREATMENT OF COMPOUND FRACTURES INVOLVING JOINTS.

DR. MCCANN: I would like to talk about the treatment of compound fractures involving the joints, such as are attended by more or less destruction, not only of the bony tissues, but also of the soft parts in the vicinity of the injury. Such injuries result commonly, as they have fallen under my observation, from two causes: first, accidents which happen to brakemen in coupling cars in which the elbow is caught between the "drawheads" or "deadwoods" of a pair of cars. In putting in the link to make the coupling or in attempting to drop the pin, the elbow is caught directly between either the drawheads or the deadwoods. The result of this is an extensive fracture involving the elbow joint, with extensive laceration and bruising, of the soft tissues.

The second form of accident is that which involves the ankle joint, and in which the foot is caught either beneath the wheel or pinched by the brake-block. In one case, still under my care, the man fell between the trucks, his foot falling so that not the crown of the wheel but the flange passed across the outer and dorsal surface of the foot opening the ankle joint but not cutting through the tendo Achillis, though tearing the skin as far as the inner edge of that tendon. In another case, the accident involved the limb a little higher up, also opening the joint and crushing the astragalus. In the past, efforts to save such limbs, usually resulted in a secondary amputation or in the death of the patient. The method of treatment is certainly a very important element in the history of these cases. Under the old régime the treatment usually adopted consisted of a sort of perfunctory cleansing of the wound, the application of carbolized oil or carbolic solution; the limb was placed in the position deemed most favorable in the eyes of the surgeon, and the reparative powers of nature were trusted to either cure the foot or demonstrate the utter impossibility of saving it if the patient did not die in the effort to find out whether or not his foot should be cut off. Within the past few years this has been modified, and the practice now (and I presume it is so all over the world), is to be guided by the extent of the injury. If the blood vessels and nerves are not involved, even if the bones be extensively crushed, an effort should be made to save the part, and this effort is comparatively simple, or rather the principles upon which it should be carried out are simple. First, cleanse the wound thoroughly, remove everything, fragments of bone, of devitalized skin, of wood or iron, everything foreign or liable to be septic. Then the limb should be thoroughly dressed antiseptically after being carefully washed in some solution, and the one I resort to is bichloride of mercury 1 to 1,000 or 1 to 2,000; the limb is then carefully put up in an antiseptic dressing, carefully but loosely applied so as not to constrict but to protect the wound. If there is any tendency for the tissues to fall into such a shape that there will be pockets, I have no hesitancy in making counter openings and introducing whatever number of drainage tubes may be necessary to secure proper discharge for the wound secretions. Now, having done this, the limb is placed on a splint, care being taken that there is no constriction of any part, that there is no tight bandage, no application which can in any way interfere with the arterial circulation or obstruct the return of venous circulation. The limb is elevated so as to favor the return circulation, and then dry heat is applied externally to all the dressings. The first dressings should be of sublimated or iodoformed gauze; borated or carbolated cotton is also applied to simply protect the wound by placing around it a sufficient amount of absorbent material, to exert a very moderate degree of elastic compression and to prevent constriction. Now, under this treatment you will either discover at the end of twenty-four hours that your limb is saved or is absolutely lost, and in the meantime you have protected your patient in the event of gangrene attacking the limb as a result of the traumatism. You have protected your patient against sepsis; and even if gangrene does occur, it does not spread with the rapidity it in-

variably assumes when the wound becomes septic. You have nothing to fear from the occurrence of that acute, spreading gangrene, the "gangrene of inflammatory sepsis" which has been the curse of surgery in the past. Usually at the end of twenty-four hours the first dressing should be changed, and it has been my habit to again cleanse the wound thoroughly to pass a stream of some antiseptic fluid, usually the 1-2000 bichloride solution through the drainage tubes. Usually you will find one or two of them filled with coagulated blood. This should be removed, and if the opening is large enough it need not be replaced. The second dressing should be applied just as the first. After this second dressing, it is usually unnecessary to replace the dressing for seventy-two hours or longer. A finger or toe should always be left uncovered, by which you can ascertain the condition of the extremities. If the toes or fingers continue warm when you expose them, and the capillary circulation perfect, you have nothing to fear. Now under this treatment, if infection does not occur, the wound surfaces are not irritated by septic material. Suppuration does not occur. The discharges which flow from the wound are trifling in amount. The wound itself is comparatively painless. If there be dead portions, and usually there are, dead fragments of bone, dead shreds of skin or of bruised muscle remaining in the wound, of course they are foreign bodies; but the process of separation between the dead portion and the living goes on kindly and without suppuration. Without going further into the details of treatment, I may state that this plan should be carried on until the whole surface of the wound is cicatrized. The dressing does not require changing more than once in four or five days. Now to close this matter, I may state that of all the cases I have treated, five have involved the ankle joint, two of them were complicated by fractures of leg bones, one of them with the splitting of the tibia for eight inches. In all, the joint was widely laid open, extensive damage had been inflicted upon the bones with great laceration and contusion of the foot and of the tissues around the ankle. In another instance, one in which the foot was caught under the flange of the wheel by the patient falling between the trucks, the flange traveled up along the outer surface of the foot opening the ankle joint, crushing through the bones of the foot so that when the stitches which had been injudiciously applied were cut, the crushed portion of the foot dropped apart.

Now under the method of treatment which I have advocated, thorough antiseptic cleaning, thorough draining, the use of loosely but thoroughly applied antiseptic dressings, this foot has been saved, and the man will soon be able to walk upon it.

DR. BUCHANAN: I think the Society is under an obligation to Dr. McCann for the practical and excellent manner in which he has laid down the rules for the treatment of these injuries. I believe the general principles he has enunciated are the accepted ideas on the subject, and they are very well established to-day; and for that reason I think we are disposed to take for granted that because Dr. McCann and certain other men who see a very great amount of railroad and other surgery, do adopt these rules of conduct, their adoption is universal. I think this is a mistake, and I think we can very profitably stop and repeat these rules as Dr. McCann has done for us this evening. The most unexpected results, I think, can frequently be achieved by careful, systematic and methodical repair of injuries. I exhibited to this Society some time ago a case of complete excision of the ankle with excellent motion, in which there had been extensive laceration and crushing of the joint. Since that time I have attended another case in which the ankle, and indeed the whole posterior and middle part of the foot, were so crushed that I hardly felt justified in asking the man to allow me to attempt to save it, but the man was urgent in his desire and would not permit the subject of amputation to be discussed; he knew the foot could be saved, and he gave me no option in the matter, and somewhat against my judgment I excised the ankle-joint, put the foot together, and the result is that to-day the man walks very well with a cane, and will soon dispense with it. The astragalus, a portion of the os calcis, the lower extremities of the leg bones, and some pieces of the other tarsal bones, were lost. The lower end of the tibia was wired to the lower part of os calcis, and the soft parts of the foot were stitched together and dressed, as Dr. McCann has so well described. The patient recovered without a bad symptom. The wire was removed some weeks afterward.

(*To be concluded.*)

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR REGULAR CORRESPONDENT.)

One of the Causes of non-success observed after Laparotomy performed for Internal Strangulation —Treatment of the Congestive states of the Brain —Autographism—Cure of a Case of Traumatic Tetanus—Chloroform Vapor as an Antiseptic.

In a communication made by Dr. Duret to the Congress of French Surgery on the utility of washing out the stomach in the cases of laparotomy for internal strangulation, the author point-

ed out that as a principle, one of the causes of non-success observed after laparotomy performed for internal strangulation, was the defect of intestinal antisepsis. The septic liquids of the digestive tube transude into the peritoneum. In support of the preceding doctrine, the author communicated the following case: A man, æt. 57 years, presenting all the signs of internal strangulation, such as fæcaloid vomiting, meteorism and hypothermia. The strangulation had commenced four days previously, and futile attempts had been made to overcome it by purgatives, rectal douches, and electrization. Laparotomy was then performed. The intestine was red, the peritoneum contained a grayish fluid. Whilst explorations in the abdominal cavity were being practiced, the strangulation was removed. This latter was due to a cord-like substance situated in the neighborhood of the cæcum. The cord was cut, and the result of the operation was only slightly favorable, the temperature was low, amounting to algidity. On the third day, the fæcaloid vomiting persisted. Washing of the stomach was then resorted to, which caused the evacuation of a blackish liquid, of a very pronounced fæcaloid odor. From that time, the cure was promptly effected. Dr. Duret would recommend, in similar cases, the washing of the stomach before operation, as this expedient often suffices to overcome the internal strangulation. In any case, it renders chloroformization more favorable, if this is necessary to perform laparotomy. It diminishes the meteorism that which facilitates, during the intra-abdominal manœuvres, the search for the agent of the strangulation. Consecutively to the operation, the washing of the stomach prevents auto-infection, that is to say, the invasion by germs of the intestines, the peritoneal cavity and the rest of the economy.

At a recent meeting of the Société de Therapeutique, Dr. Huchard read a note on the treatment of the congestive states of the brain. According to the author, the following is the treatment to be pursued in persons who have congestive phenomena giving rise to the fear later on of an active congestion or of a cerebral hæmorrhage. Besides general hygiene, the iodides should, above all other medication, be prescribed. Immediately after the occurrence of hæmorrhage, ergotinine in subcutaneous injections, which has the property of exciting vaso-constriction. Also, in sclerosis in patches and in general paralysis, when apoplectiform attacks supervene, as well as in true old apoplectics, when congestive attacks supervene. The following is the formula for injections: Ergotinine, 1 centigram; lactic acid, 2 centigrams; cherry laurel water, 10 grams. From one to four injections per day, each syringe containing 1 milligram of ergotinine.

At a recent meeting of the Academy of Medicine, Dr. Mesnet, Hospital Physician, presented a young woman offering a curious example of what he described under the name of autographism. If one trace very lightly on the skin of this patient with the point of a pencil any signs or characters whatever, the skin so marked becomes rapidly raised and forms a relief which can be distinguished at a distance of 20 metres, reproducing exactly the letters or figures that had been traced on it. Dr. Mesnet based his work on four cases which presented themselves identically in his hospital practice. They were evidently hysterical subjects, or in women with weak minds. The tracings on the skin were visible whether it was in an anæsthetic condition or not, and the same phenomenon was produced constantly in the four women. The author therefore concludes that autographism is a reflex act. He considers that it is not a transitory and ephemeral act, for he has had these patients under his observation for the last ten, six, four and two years, and the autographism still exists. Autographism, the author observes, cannot be confounded with the meningitic and typhodic tracings on the skin. Urticaria appears to belong to the same nosological group, but what differentiates autographism from urticaria is that it is independent to any diathesis, and appears to have hysterical nervosism for predisposing cause. It is met only in hysterical subjects but, on the other hand, is a very rare phenomenon of hysteria. These patients are easily hypnotizable.

Cures of cases from tetanus are so extremely rare, that Professor Villemin considered the following case sufficiently interesting to be communcated to the Academy. It refers to a case of traumatic tetanus under the care of Drs. Solles and Fromaget, of Bordeaux, and which ended in a cure. The indications of treatment are, according to the authors, to exaggerate to the maximum the work of the elimination of the microbian excreta by the skin and the mucous membranes, and to direct remedies against the tetanic contractures and against the pain. To fulfil the first of these indications, the authors recommend the administration of purgatives, subcutaneous injections of pilocarpine and vapor baths. The second indication should be fulfilled in administering chloral against the contractures, and morphine and the bromide of potassium against the pain.

Dr. Desprez, of Saint Quentin, vaunts as antiseptics the inhalations of chloroform, under the form of vapors obtained by slightly heating a saturated solution of water and chloroform, that is, about 2 grams of chloroform to 100 of water. The author adds a little of this solution to tea, coffee or wine, and affirms that he obtained the best results in cases of grippe, coryza, and bronchial catarrh.

A. B.

DOMESTIC CORRESPONDENCE.

Dry Method of Treating Wounds.

To the Editor:—From reading the address of the Chairman of the Section on Surgery at the late meeting of the Association, one is at a loss to know whether Dr. Logan was not aware of what had been written on the "Dry Method of Treatment of Wounds," previous to the address of Dr. Landerer, before the German Congress of Surgeons; or whether the matter was presented by him, in a clearer and more convincing light, in view of the growing general distrust of Listerism, in all its details, by the profession arriving at the conclusion that the benefits are summed up in cleanliness, and the practically dry and infrequent dressing of wounds. But, be it as it may, no credit is given the advocates of dry treatment, in this country or in England, although cases reported might have been as convincing as any contained in Dr. Landerer's address.

On February, 8, 1879, I published a brief paper in the *Cincinnati Lancet-Clinic*, on the "Treatment of Wounds," in which this sentence occurs: "I have no doubt that much of the success of Lister's method is due to fulfilling of these very indications—*keeping dry, protecting, and disturbing as seldom as possible.* Heat and moisture are the most favorable conditions for decomposition. The dressings cannot be retained half so long where water is applied—the plastic material is diluted and washed off, repair is retarded, increased inflammatory action results." At that time I was not aware that any surgeon, in this or any other country, advocated this treatment; it was contrary to the teaching of authorities; but I had been gradually adopting it for several years, and though eminently satisfactory, I was somewhat restrained by my friends. It was with gratification and pleasure that I shortly afterward saw, in the London *Lancet*, an article, published on the same day as my paper, by the distinguished Surgeon to Queen's Hospital, Birmingham, Mr. Sampson Gamgee, on the subject. He afterward sent me a copy of his work on "Treatment of Wounds," of which I had never heard, and which deserves the careful perusal of every surgeon. Mr. Gamgee says (p. 2): "Lecturing here in 1867, I told you I looked upon water dressings as not much better than a poultice, as favoring suppuration, and opposed to healing. Experience has only added confirmation to this opinion; and it is now many years since I applied water dressing, or a poultice, to a wound I wished to heal. Yet Mr. Erichsen, in the last edition of his works, seems scarcely less fond of water dressing than (following immediately in Robert Liston's steps) he was, when Joseph Lister and myself acted as his earliest dressers, now seven and twenty years ago."

Here were two surgical dressers of Mr. Erichsen, seeking better results in wound treatment, and a careful examination of cases reported, will not show more gratifying results from Listerism, than from Mr. Gamgee's method; yet results, personally, to the two men, were widely different. Mr. Lister was knighted for his achievements, and antisepsis became a household word all over the civilized world; while the dry method is only beginning to be appreciated by a few surgeons, and Mr. Gamgee's name, as connected with it, seems to be almost unknown. Yet of the former's method I might almost say, "one by one the myths have faded from the clouds; one by one the phantom host has disappeared; one by one facts, truths and realities have taken their places." The spray has disappeared, and the instrument maker is left with the expensive apparatus for its generation on his hands; carbolic acid gave way to the sublimate, hydro-naphthol, etc.; and the last heard from Sir Joseph, he was experimenting with the cyanides to supplant those mentioned.

If microörganisms were the cause of the unfavorable results of wounds, it has long since been demonstrated that any of the so-called germicides, to be efficient, would likewise destroy the patient. Billroth says (*Canada Lancet*): "Corrosive sublimate, in dilute solutions, is practically inert as an antiseptic to wounds, and renders patient and surgeon alike liable to mercurial poisoning. Carbolic acid, which is known to be dangerous in strong solutions, is, in very weak ones, as good for wound irrigation as clean water, but probably no better." A writer to the *Medical Press and Circular* (copied in the *Cincinnati Lancet-Clinic*, January 7, 1888) says: "It is difficult for surgeons, and others who have been reared in an atmosphere heavily charged with antiseptics, to entertain the idea that antiseptics, whether in spray, powder or solution, may be only a fashion, a whim, in fact, an ephemeral current of thought . . . . and our pet theories may, by and by, fade away into the gloom of oblivion, to be alluded to only as archæological curiosities . . . . The more one looks into the subject, the more is one disposed to question the value of antiseptics *per se*."

When I wrote my first paper, I was told I would live long enough to regret it. It was almost criminal to doubt. And yet Bourgeon's method and Brown-Séquard's elixir are numbered with the things that were. Infidelity has done much to advance Christianity, and likewise medicine. Turn as they may, seek where they will for something to break the fall, that part of Listerism will go down, while that for which the author deserves all the credit he has received, which has revolutionized surgery, scrupulous cleanliness and practically dry dressings, will stand for all time. Mr. Gamgee says (p. 8): "In neither case was the dressing touched for several days. I attach much importance to the dry dressings. The sponges

were squeezed out of clean water; not a drop of water was afterward allowed to touch the wound. Drenching wounds with water during an operation, and washing them with it afterwards, are mistakes. Water favors decomposition, which is an enemy of healing action," almost the words I had used, above quoted. I had reasoned that if there were inimical germs in the air, there were likely to be worse in the water, the former being nature's purifying agent.

C. B. MILLER, M.D.

312 Fifth Ave., Helena, Mont.

Reform of Medical Education.

To the Editor:—I have read with great pleasure the presidential address of Dr. E. M. Moore, in which he advocates a Department of Public Health for this country, as well as the very concise letter of Dr. John B. Roberts, in the same issue of THE JOURNAL, on the Conference of Medical College Delegates. I was particularly interested in Dr. Moore's address, because in an editorial in THE JOURNAL of January 21, 1888, I wrote in favor of a Department of Public Health, and so far as I know such a suggestion had not been made before.

I was surprised, however, that Dr. Moore did not refer to the need of such a department of the government for regulating medical education and practice in the United States. Surely it is quite as important, from the standpoint of public welfare, that our medical men should be properly educated, and that quackery and bogus colleges should be exterminated, as that our foods should be kept pure, our malarial swamps drained, and other sanitary measures be taken. And while Dr. Roberts was correct in his interpretation of the moral responsibility of the schools, the history of medical education in this country shows plainly enough that some of the schools, having no souls to save, know nothing of morals nor of moral responsibility. With a very few and notable exceptions the schools that have raised their standard have done so through fear of having their graduates refused licenses by State boards of health, notably the Illinois Board.

Furthermore, the past two years have seen a marked increase in the illegitimate birth-rate of medical colleges in this country. There may be some inscrutable wisdom in the "founding" of new medical colleges in this country, but it is that species of wisdom that, for the present at least, passeth all understanding. With enough medical colleges to educate physicians for 200,000,000 people, it certainly seems that the mills for making new colleges should be shut down, especially since the surplus of doctors is far greater than our "home market" demand, and we can neither export nor pay pensions with the ever increasing surplus. It certainly seems that something should be done before there is a medical college in every postoffice and the signs of half educated "doctors" hang over the edges of the country like a fringe.

In October, 1889, I proposed federal regulation of medical education and practice in the *North American Review*. The proposition was violently opposed, but only, so far as I know, by some professors in lower-class colleges, and these would be expected to oppose a measure that would compel them to raise their standard. They know well enough that they are putting "one pound" labels on one-half and three-quarter pound graduates, but they don't wish to be compelled to give full measure. That is human nature, which cannot be changed easily after the age of puberty.

The history of medical education and legislation in this country gives us no reason for hoping either for voluntary reform on the part of the low-class colleges, or for a uniform standing on account of State regulations. The only hope lies in the people's awakening to their needs, taking the matter into their own sovereign hands in the federal government, and making the American degree mean something, instead of being a reproach among civilized peoples.

WILLIAM G. EGGLESTON.

204 Cass street, Chicago.

ASSOCIATION NEWS.

The Jenner Centennial Committee.

Committee appointed under the resolution to the effect that the American Medical Association should take proper notice of the coming Centennial of Jenner's discovery of vaccination, and to report a practical scheme which shall bring the century of vaccination in America under review, and in such study secure the expression and cooperation of the medical profession in every part of the country, old and new, as to its great beneficence, and report such recommendations as to scope and method to accomplish the purposed end in view:

Dr. J. M. Toner, Washington, D. C., Chairman.
Dr. C. H. Franklin, Union Springs, Ala.
Dr. P. O. Hooper, Little Rock, Ark.
Dr. G. G. Tyrrell, Sacramento, Cal.
Dr. P. V. Carlin, Denver, Colo.
Dr. C. A. Lindsley, New Haven, Conn.
Dr. F. P. Kenyon, Fargo, Dak.
Dr. W. B. Reynolds, Wilmington, Del.
Dr. J. P. Wall, Tampa, Fla.
Dr. Eugene Foster, Augusta, Ga.
Dr. J. H. Rauch, Springfield, Ill.
Dr. J. F. Hibberd, Richmond, Ind.
Dr. W. F. Peck, Davenport, Ia.
Dr. W. L. Schenck, Osage City, Kans.
Dr. J. N. MacCormack, Bowling Green, Ky.
Dr. Joseph Jones, New Orleans, La.
Dr. F. H. Gerrish, Portland, Me.
Dr. J. R. Quinan, Baltimore, Md.

Dr. S. C. Martin, Boston, Mass.
Dr. H. B. Baker, Lansing, Mich.
Dr. Perry H. Millard, St. Paul, Minn.
Dr. Wirt Johnson, Jackson, Miss.
Dr. W. A. Hardaway, St. Louis, Mo.
Dr. D. W. C. Bryant, Omaha, Neb.
Dr. G. P. Conn, Concord, N. H.
Dr. Ezra M. Hunt, Trenton, N. J.
Dr. John P. Kaster, Albuquerque, New Mex.
Dr. F. P. Foster, New York, N. Y.
Dr. T. F. Wood, Wilmington, N. C.
Dr. C. O. Probst, Columbus, Ohio.
Dr. W. D. Baker, Astoria, Oregon.
Dr. Wm. M. Welch, 841 N. Broad, Philadelphia, Pa.
Dr. G. D. Hersey, Providence, R. I.
Dr. H. D. Fraser, Charleston, S. C.
Dr. F. L. Sim, Memphis, Tenn.
Dr. S. D. Thurston, Dallas, Texas.
Dr. F. H. Bascom, Salt Lake City, Utah.
Dr. H. D. Holton, Brattleboro, Vt.
Dr. L. B. Edwards, Richmond, Va.
Dr. N. F. Essig, Spokane Falls, Wash.
Dr. C. T. Richardson, Charleston, W. Va.
Dr. B. O. Reynolds, Lake Geneva, Wis.
Dr. Chas. Smart, U. S. A., Washington, D. C.
Dr. J. W. Ross, U. S. N., Pensacola, Fla.
Dr. Walter Wyman, U. S. Marine-Hospital Service, Washington, D. C.

MISCELLANY.

LETTERS RECEIVED.

Dr. J. B. Crowley, Sullivan, Ind.; Dr. F. L. Wadsworth, Dr. G. F. Lydston, Chicago; Dr. Walter Wyman, Washington; A. T. Jones, Nashville, Tenn.; Dr. A. C. Peters, Iowa City, Ia.; Dr. T. H. Manley, New York; Dr. A. B. Bowen, Maquoketa, Ia.; Dr. B. A. Watson, Jersey City, N. J.; Eastman Co., Rochester, N. Y.; Dr. T. P. Crutcher, Nashville, Tenn.; Dr. F. B. Reagor, Flat Creek, Tenn.; Dr. W. L. Moor, Tallahassee, Fla.; Dr. H. T. Rennolds, Baltimore, Md.; Drs. Hobson & Appleby, Bristow, Ia.; Dr. C. R. Schaefer, Indianapolis, Ind.; Dr. C. O. Sones, Panora, Ia.; Dr. J. W. Ferguson, Canaan, O.; Dr. W. H. Forbes, Richmond Hill, N. Y.; W. T. Keener, Chicago; Dr. A. W. Gibson, Brooklyn, N. Y.; Dr. H. Moulton, Fort Smith, Ark.; Dr. J. C. Slack, Folsom, N. M.; Dr. F. A. Butler, Harvard, Neb.; T. W. Hannaford, London, Eng.; Dr. N. B. Bristow, Flat Rock, Ill.; John Wyeth & Bros., Philadelphia; Dr. J. H. Miller, Oconee, Ill.; Dr. C. L. Lewis, Nashville, Tenn.; Dr. P. B. Porter, New York; Dr. J E. Michael, Baltimore, Md.; Dr. J. B. Hamilton, Washington, D. C.; Dr. H. B. Stehman, Chicago; Dr. J. E. Cowan, Galesburg, Ill.; Dr. C. E. C. S. Thiesen, East Portland, Ore.; Physicians' Supply Company, Philadelphia; Dr. I. M. Rosenthal, Fort Wayne, Ind.; J. M. Anderson, Pine Bluff, Ark.; Dr. Harold N. Moyer, Chicago; Dr. E. Blakeslee, Anamosa, Ia.; John Davol & Sons, New York; Dr. R. C. Stocton Reed, Cincinnati, O.; Dr. W. W. Potter, Buffalo, N. Y.; Dr. M. R. Brown, Chicago; Dr. R. L. Brodie, Charleston, S. C.; Dr. S. O. L. Potter, San Francisco, Cal.; Dr. C. L. Lewis, Jr., Nashville, Tenn.; Dr. Herbert Judd, Galesburg, Ill.; Dr. E. J. Mellish, Ishpeming, Mich.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from June 21, 1890, to June 27, 1890.

By direction of the Secretary of War, Major Samuel M. Horton, Surgeon U. S. A., will visit the encampment of the Maine Volunteer Militia, at Augusta, Me., during the period of its encampment, June 30 to July 4, 1890, inclusive, for the purpose of instructing the medical department thereof in its duties in camp, and on completion of this duty, will return to his proper station. Par. 5, S. O. 143, Adjutant General's Office, Washington, June 19, 1890.

Capt. Marcus E. Taylor, Asst. Surgeon, is hereby granted leave of absence for one month, on surgeon's certificate of disability, with permission to go beyond the limits of the Division and to apply for an extension of five months. Par. 1, S. O. 45, Div. of the Pacific, San Francisco, Cal., June 13, 1890.

By direction of the Secretary of War, Major Charles R. Greenleaf, Surgeon, will attend the encampment of the Pennsylvania National Guard at Mount Gretna, Pa., from the 18th to the 26th of July, 1890, for the purpose of accompanying the Surgeon-General of Pennsylvania in his inspection of the camp. Par. 11, S. O. 144, A. G. O., June 20, 1890.

Capt. Howard Culbertson (retired), died June 18, 1890, at Zanesville, O.

Capt. William C. Borden, Asst. Surgeon, is granted leave of absence for three months and fifteen days, to take effect as soon as his services can be spared. By direction of the Secretary of War. Par. 11, S. O. 146, A. G. O., June 23, 1890.

APPOINTMENTS.

To be Asst. Surgeon with the rank of First Lieutenant:
Frank R. Keefer, of Pensylvania, June 6, 1890. Vice Woodruff, promoted.
Thomas U. Raymond, of Indiana, June 6, 1890. Vice Newton, resigned.
Henry D. Snyder, of Pennsylvania, June 6, 1890. Vice Wilson, resigned.
Allen M. Smith, of New York, June 6, 1890. Vice Matthews, promoted.
Ashton B. Heyl, of Pennsylvania, June 6, 1690. Vice Hall, promoted.
Joseph T. Clarke, of New York, June 6, 1890. Vice Porter, resigned.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending June 28, 1890.

John E. Page, Berryville, Va.; Robert M. Kennedy, Pottsville, Pa.; James M. Whitfield, Richmond, Va.; Lewis H. Stone, Litchfield, Conn.; commissioned Asst. Surgeons in the Navy.

Asst. Surgeon Louis W. Atlee, detached from the U. S. S. "Marion" and granted three months' leave.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, for the Three Weeks Ending June 21, 1890.

Surgeon J. M. Gassaway, when relieved at Cairo, Ill., to proceed to New Orleans, La., and assume command of the Service at that station. June 4, 1890.

Surgeon G. W. Stoner, granted leave of absence for three days. June 18, 1890.

P. A. Surgeon Eugene Wasdin, granted leave of absence for fourteen days. June 5 and 10, 1890.

P. A. Surgeon J. H. White, to proceed to Savannah, Ga., on special duty, June 9, 1890.

Asst. Surgeon F. C. Heath, granted leave of absence for fifty-eight days. June 10, 1890.

Asst. Surgeon G. M. Magruder, granted leave of absence for twenty days. June 2, 1890. Ordered to examination for promotion. June 5, 1890.

Asst. Surgeon R. M. Woodward, relieved from duty at Chicago, Ill., to assume command of Service at Cairo, Ill. June 4, 1890.

Asst. Surgeon A. W. W. Condict, upon expiration of leave of absence, to report to Medical Officer in command at Chicago, Ill., for duty. June 4, 1890.

RESIGNATION.

Asst. Surgeon F. C. Heath, resignation accepted by the President, to take effect August 31, 1890. June 11, 1890.